



Power Modules 2019/2020

starpower

- IGBT MODULES
- SiC MODULES



About StarPower

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Through heavy investment in R&Ds, we offer a broad range of quality and eco-friendly products and services to our customers. We are committed to excellence in all things we do. The company has one of the best production lines and well-trained workforce in the industry. Our mission is to create the most value for the success of our customers around the globe.

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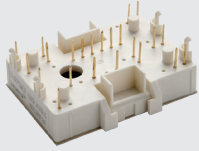
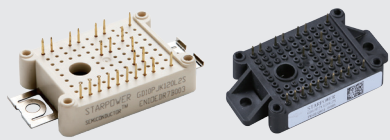

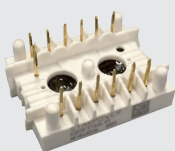
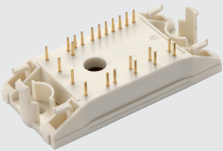
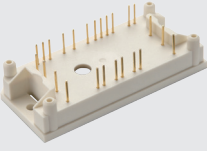
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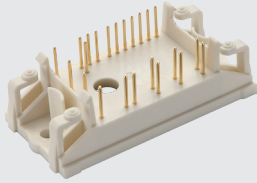
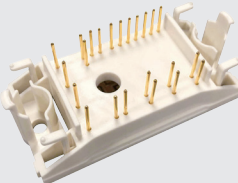
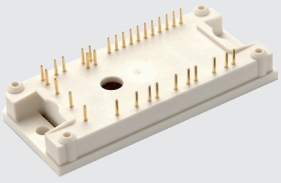
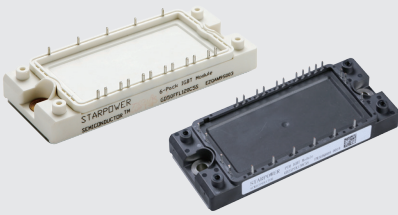
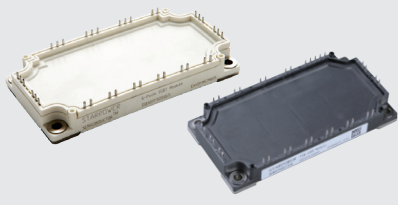
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Low Power Modules 






Package Type	V_{CES} (V)				I_c (A)							
	600	650	1200	1700	5	10	25	30	40	75	150	200
 L1 : PIM	[Bar from 600 to 1200]				[Arrow from 10 to 30]							
 L2 : 3 phase bridge/PIM	[Bar from 600 to 1200]				[Arrow from 10 to 40]							
 L3 : 3 phase bridge/PIM/NPC	[Bar from 600 to 1200]				[Arrow from 10 to 150]							
 L4 : 3 phase bridge	[Bar from 600 to 1200]				[Arrow from 10 to 30]							
 F1 : PIM/NPC/Boost	[Bar from 600 to 1200]				[Arrow from 10 to 40]							
 F2 : PIM/NPC	[Bar from 600 to 1200]				[Arrow from 10 to 40]							



Low Power Modules

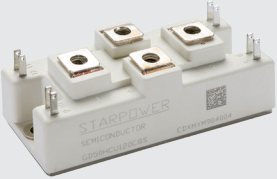
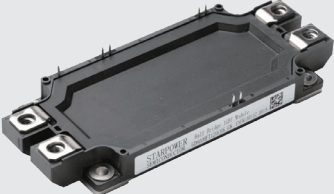
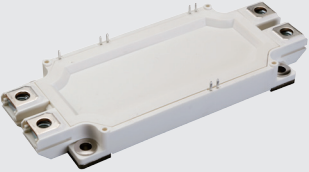
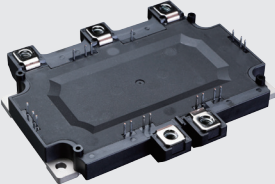
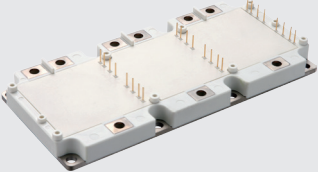
Package Type	V_{CES} (V)				I_c (A)							
	600	650	1200	1700	5	10	25	30	40	75	150	200
 <p>F3 : PIM</p>	[Blue bar]				[Blue arrow]							
 <p>F4 : PIM</p>	[Blue bar]				[Blue arrow]							
 <p>F5 : PIM</p>	[Blue bar]				[Blue arrow]							
 <p>C5 : H bridge/3 phase bridge/PIM</p>	[Blue bar]				[Blue arrow]							
 <p>C6 : H bridge/3 phase bridge/PIM</p>	[Blue bar]				[Blue arrow]							

Medium Power Modules 





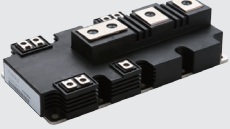

Package Type	V_{CES} (V)				I_c (A)							
	600	650	1200	1700	50	100	150	200	400	600	800	900
 <p>C1: chopper/half bridge</p>	[Blue bar]				[Blue arrow]							
 <p>C2.0: chopper/half bridge</p>	[Blue bar]				[Blue arrow]							
 <p>C2.1: single</p>	[Blue bar]				[Blue arrow]							
 <p>C8.0: half bridge</p>	[Blue bar]				[Blue arrow]							
 <p>C8.1: half bridge</p>	[Blue bar]				[Blue arrow]							



Medium Power Modules



Package Type	V _{CES} (V)				I _c (A)								
	600	650	1200	1700	50	100	150	200	400	600	800	900	
 <p>C8.2: H bridge</p>			█		█								
 <p>C6.1 black: half bridge/half NPC</p>		█	█						█				
 <p>C6.1 white: half bridge</p>		█	█	█					█				
 <p>P3: 3 phase bridge</p>		█	█						█				
 <p>P4: Tri-Pack</p>		█	█							█			

High Power Modules 

Package Type	V_{CES} (V)			I_c (A)							
	1200	1700	3300	400	600	900	1000	1400	2400	3600	
 C3.0: single	[Blue bar]			[Blue arrow pointing right]							
 C3.1: half bridge	[Blue bar]			[Blue arrow pointing right]							
 C3.2: single	[Blue bar]			[Blue arrow pointing right]							
 C4.0: single	[Blue bar]			[Blue arrow pointing right]							
 P1: half bridge	[Blue bar]			[Blue arrow pointing right]							
 P2: half bridge	[Blue bar]			[Blue arrow pointing right]							

SiC Mosfet Modules



Package Type	V_{DSS} (V)		I_D (A)				
	1200	1700	50	120	200	400	600
 <p>C2 : half bridge</p>	→		→				
 <p>B3 : half bridge</p>	→		→				

IGBT Module Nomenclature



GD =IGBT Modules

Nominal Current

$I_c(@T_c=80\text{ }^\circ\text{C})$ as e.g. 200=200A

Circuit Configuration

- SG=Single
- CU=Chopper Diode Up Side
- CL=Chopper Diode Low Side
- HF=Half Bridge
- HT=Tri-Pack
- HH=H Bridge
- HC=Internal Connected H Bridge
- ML=3 Level,Diode Clamplng,NPC1
- MP=Upper Half of NPC1 3 Level
- MN=Lower Half of NPC1 3 Level
- TL=3 Level,IGBT Active Clamplng,NPC2
- TU=NPC1 Boost
- FF=3 Phase Bridge
- FS=3 Phase Open Emitter Output
- PI=3 Phase Rectifier+Brake+3 Phase Output
- PJ=3 Phase Rectifier+Brake+3 Phase Open Emitter Output
- PF=3 Phase Rectifier+H Bridge Output

Die Characteristics

- K=NPT Low Loss
- U=NPT Ultra Fast IGBT
- L=SPT+ Low Loss and Fast IGBT
- X=Trench FS IGBT,Low Loss
- Y=Advanced Trench FS IGBT,Low Loss
- F=Advanced Trench FS Ultra Fast IGBT Without Short-circuit Capacity
- Q=Advanced Trench FS Fast IGBT

*N=New Pins Layout

F=PressFIT Pins

Voltage/10 e.g. 65=650V

Screening Level

- S=Screened for Industrial Applications
- H=Screened for High Reliability Applications

Package Type

- C1=94mmx34mmx30mm,Cu Base
- C2=106mmx62mmx30mm,Cu Base
- C3=140mmx130mmx38mm,Cu Base
- C4=190mmx140mmx38mm,Cu Base
- C5=107mmx45mmx17mm,Cu Base
- C6=122mmx62mmx17mm,Cu Base
- C8=94mmx48mmx29mm,Cu Base
- F1=68.4mmx32.5mmx15.65mm,DBC Base
- F2=82mmx37.4mmx16.23mm,DBC Base
- F3=66mmx32.5mmx21.2mm,DBC Base
- F4=68.4mmx32.5mmx21.15mm,DBC Base
- F5=82mmx37.4mmx21.25mm,DBC Base
- L1=40mmx56mmx20.5mm,DBC Base
- L2=34mmx48mmx15.5mm,DBC Base
- L3=48mmx57mmx15.5mm,DBC Base
- L4=26mmx36mmx15.5mm,DBC Base
- P1=172mmx89mmx38mm,Cu Base
- P2=250mmx89mmx38mm,Cu Base
- P3=113mmx140mmx17mm,Cu Base
- P4=100mmx216mmx28.4mm,Cu Base



MD **300** **HF** **R** **120** **C2** **S**

MD =SiC Mosfet Modules

Nominal Current
 $I_b(@T_c=80^\circ C)$ as e.g. 300=300A

Circuit Configuration
HF=Half Bridge

Die Characteristics
R=SiC Mosfet

Voltage/10 e.g. 120=1200V

Package Type
C2=106mmx62mmx30mm,Cu Base
B3=108mmx62mmx17mm,Cu Base

Screening Level
S=Screened for Industrial Applications
H=Screened for High Reliability Applications

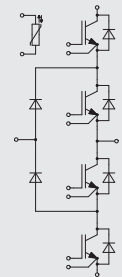
Low Power Modules 

Type	V_{CES} V	I_c A	$V_{CE(sat)}$ @ $T_j=25^{\circ}C$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^{\circ}C$ typ. mJ	$R_{th(J-C)}$ K/W	Package Outline/page	Circuit
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650V NPC1

Trench FS IGBT,Low Loss

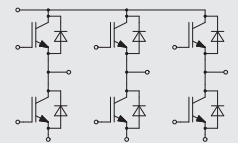
GD75MLX65L3S	650	75	1.45	2.32	0.514	L3.1/20
GD100MLX65L3S	650	100	1.45	3.36	0.384	L3.1/20
GD150MLX65L3S	650	150	1.45	5.48	0.269	L3.1/20
GD75MLX65L3SF	650	75	1.45	2.32	0.514	L3.3/21
GD100MLX65L3SF	650	100	1.45	3.36	0.384	L3.3/21
GD150MLX65L3SF	650	150	1.45	5.48	0.269	L3.3/21



650V 3 Phase Bridge

Trench FS IGBT,Low Loss

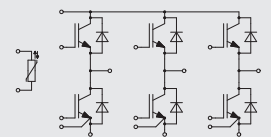
GD10FSX65L4S	650	10	1.45	0.44	3.132	L4.0/21
GD15FSX65L4S	650	15	1.45	0.67	2.344	L4.0/21
GD20FSX65L4S	650	20	1.45	0.99	2.063	L4.0/21
GD30FSX65L4S	650	30	1.45	1.04	1.289	L4.0/21



650V 3 Phase Bridge with NTC

Trench FS IGBT,Low Loss

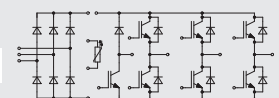
GD20FSX65L2S	650	20	1.45	0.99	1.955	L2.1/19
GD30FSX65L2S	650	30	1.45	1.04	1.222	L2.1/19
GD50FSX65L2S	650	50	1.45	1.74	0.745	L2.1/19
GD20FSX65L2SF	650	20	1.45	0.99	1.955	L2.6/20
GD30FSX65L2SF	650	30	1.45	1.04	1.222	L2.6/20
GD50FSX65L2SF	650	50	1.45	1.74	0.745	L2.6/20



650V PIM

Trench FS IGBT,Low Loss

GD10PJX65L2S	650	10	1.45	0.44	2.968	L2.2/19
GD15PJX65L2S	650	15	1.45	0.67	2.221	L2.2/19
GD20PJX65L2S	650	20	1.45	0.99	1.955	L2.2/19
GD30PJX65L2S	650	30	1.45	1.04	1.222	L2.2/19
GD50PJX65L3S	650	50	1.45	1.74	0.745	L3.0/20
GD10PJX65L2SF	650	10	1.45	0.44	2.968	L2.5/19
GD15PJX65L2SF	650	15	1.45	0.67	2.221	L2.5/19
GD20PJX65L2SF	650	20	1.45	0.99	1.955	L2.5/19
GD30PJX65L2SF	650	30	1.45	1.04	1.222	L2.5/19
GD50PJX65L3SF	650	50	1.45	1.74	0.745	L3.5/21



Low Power Modules

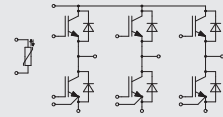


Type	V_{CES} V	I_C A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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1200V 3 Phase Bridge with NTC

Advanced Trench FS IGBT, Low Loss

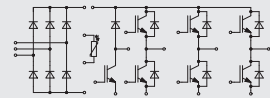
GD25FSY120L2S	1200	25	1.70	4.78	0.710	L2.1/19
GD35FSY120L2S	1200	35	1.70	6.09	0.552	L2.1/19
GD50FSY120L3S	1200	50	1.70	12.67	0.449	L3.2/20
GD75FSY120L3S	1200	75	1.70	14.40	0.292	L3.2/20



1200V PIM

Advanced Trench FS IGBT, Low Loss

GD10PJY120L2S	1200	10	1.70	2.27	1.200	L2.2/19
GD15PJY120L2S	1200	15	1.70	3.11	1.020	L2.2/19
GD25PJY120L3S	1200	25	1.70	4.78	0.710	L3.0/20
GD35PJY120L3S	1200	35	1.70	6.09	0.552	L3.0/20



NPT Low Loss

GD10PJK120L1S	1200	10	2.20	1.91	1.600	L1.2/19
GD15PJK120L1S	1200	15	2.20	2.95	1.180	L1.2/19
GD10PJK120L2S	1200	10	2.20	1.91	1.200	L2.2/19

Low Power Modules 

Type	V_{CES} V	I_c A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(J-C)}$ K/W	Package Outline/page	Circuit
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650V NPC1 Boost

Trench FS IGBT, Low Loss

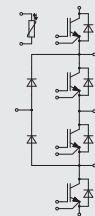
GD30TUX65F1S	650	30	1.45	1.04	1.400	F1.3/22
GD50TUX65F1S	650	50	1.45	1.74	0.854	F1.3/22
GD75TUX65F1S	650	75	1.45	2.32	0.589	F1.3/22



650V NPC1

Trench FS IGBT, Low Loss

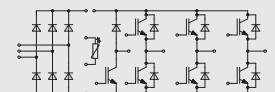
GD30MLX65F1S	650	30	1.45	1.04	1.400	F1.2/22
GD50MLX65F1S	650	50	1.45	1.74	0.854	F1.2/22
GD75MLX65F1S	650	75	1.45	2.32	0.589	F1.2/22
GD30MLX65F1SF	650	30	1.45	1.04	1.400	F1.4/22
GD75MLX65F1SF	650	75	1.45	2.32	0.589	F1.4/22



650V PIM

Trench FS IGBT, Low Loss

GD10PJX65F1S	650	10	1.45	0.44	3.402	F1.1/21
GD15PJX65F1S	650	15	1.45	0.67	2.546	F1.1/21
GD20PJX65F1S	650	20	1.45	0.99	2.241	F1.1/21
GD30PJX65F1S	650	30	1.45	1.04	1.400	F1.1/21
GD30PJX65F2S	650	30	1.45	1.04	1.400	F2.0/22
GD50PJX65F2S	650	50	1.45	1.74	0.854	F2.0/22
GD75PJX65F2S	650	75	1.45	2.32	0.589	F2.0/22
GD10PJX65F3S	650	10	1.45	0.44	3.402	F3.0/23
GD15PJX65F3S	650	15	1.45	0.67	2.546	F3.0/23
GD20PJX65F3S	650	20	1.45	0.99	2.241	F3.0/23
GD30PJX65F3S	650	30	1.45	1.04	1.400	F3.0/23
GD10PJX65F4S	650	10	1.45	0.44	3.402	F4.1/23
GD15PJX65F4S	650	15	1.45	0.67	2.546	F4.1/23
GD20PJX65F4S	650	20	1.45	0.99	2.241	F4.1/23
GD30PJX65F4S	650	30	1.45	1.04	1.400	F4.1/23
GD30PJX65F5S	650	30	1.45	1.04	1.400	F5.1/23
GD50PJX65F5S	650	50	1.45	1.74	0.854	F5.1/23
GD75PJX65F5S	650	75	1.45	2.32	0.589	F5.1/23



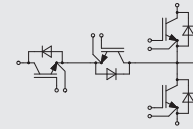


Type	V_{CES} V	I_C A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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1200V NPC2

Advanced Trench FS Fast IGBT

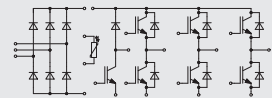
GD40TLQ120F1S	1200	40	2.00	1.57	0.572	F1.2/22
GD80TLQ120F1S	1200	80	2.00	3.14	0.286	F1.2/22
GD40TLQ120F1SF	1200	40	2.00	1.57	0.572	F1.4/22
GD80TLQ120F1SF	1200	80	2.00	3.14	0.286	F1.4/22



1200V PIM

Advanced Trench FS IGBT, Low Loss

GD10PJY120F1S	1200	10	1.70	2.27	1.340	F1.1/21
GD15PJY120F1S	1200	15	1.70	3.11	1.165	F1.1/21
GD15PJY120F2S	1200	15	1.70	3.11	1.165	F2.0/22
GD25PJY120F2S	1200	25	1.70	4.78	0.794	F2.0/22
GD35PJY120F2S	1200	35	1.70	6.09	0.633	F2.0/22
GD50PJY120F2S	1200	50	1.70	12.67	0.515	F2.0/22
GD10PJY120F3S	1200	10	1.70	2.27	1.340	F3.0/23
GD15PJY120F3S	1200	15	1.70	3.11	1.165	F3.0/23
GD10PJY120F4S	1200	10	1.70	2.27	1.340	F4.1/23
GD15PJY120F4S	1200	15	1.70	3.11	1.165	F4.1/23
GD15PJY120F5S	1200	15	1.70	3.11	1.165	F5.1/23
GD25PJY120F5S	1200	25	1.70	4.78	0.794	F5.1/23
GD35PJY120F5S	1200	35	1.70	6.09	0.633	F5.1/23



NPT Low Loss

GD10PJK120F1S	1200	10	2.20	1.91	1.340	F1.1/21
GD15PJK120F2S	1200	15	2.20	2.95	0.984	F2.0/22
GD10PJK120F3S	1200	10	2.20	1.91	1.340	F3.0/23
GD10PJK120F4S	1200	10	2.20	1.91	1.340	F4.1/23
GD15PJK120F5S	1200	15	2.20	2.95	0.984	F5.1/23

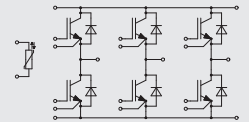
Low Power Modules 

Type	V_{CES} V	I_c A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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650V 3 Phase Bridge with NTC

Trench FS IGBT, Low Loss

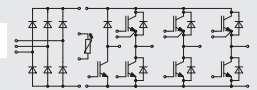
GD50FFX65C5S	650	50	1.45	1.7	0.793	C5.2/24
GD75FFX65C5S	650	75	1.45	2.3	0.561	C5.2/24
GD100FFX65C5S	650	100	1.45	3.4	0.452	C5.2/24
GD50FFX65C5SF	650	50	1.45	1.7	0.793	C5.12/24
GD75FFX65C5SF	650	75	1.45	2.3	0.561	C5.12/24
GD100FFX65C5SF	650	100	1.45	3.4	0.452	C5.12/24
GD100FFX65C6S	650	100	1.45	3.4	0.452	C6.2/25
GD150FFX65C6S	650	150	1.45	5.5	0.339	C6.2/25
GD200FFX65C6S	650	200	1.45	6.9	0.247	C6.2/25
GD100FFX65C6SF	650	100	1.45	3.4	0.452	C6.8/26
GD150FFX65C6SF	650	150	1.45	5.5	0.339	C6.8/26
GD200FFX65C6SF	650	200	1.45	6.9	0.247	C6.8/26



650V PIM

Trench FS IGBT, Low Loss

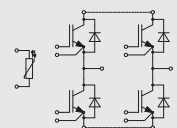
GD30PIX65C5S	650	30	1.45	1.0	1.025	C5.0/23
GD50PIX65C5S	650	50	1.45	1.7	0.793	C5.0/23
GD50PIX65C6S	650	50	1.45	1.7	0.793	C6.0/25
GD75PIX65C6S	650	75	1.45	2.3	0.561	C6.0/25
GD100PIX65C6S	650	100	1.45	3.4	0.452	C6.0/25



1200V H Bridge

NPT Ultra Fast IGBT

GD50HHU120C5S	1200	50	3.10	7.9	0.316	C5.4/24
GD75HHU120C5S	1200	75	3.10	9.3	0.225	C5.4/24
GD100HHU120C6S	1200	100	3.10	12.7	0.196	C6.4/26
GD150HHU120C6S	1200	150	3.10	23.7	0.106	C6.4/26





Type	V_{CES} V	I_C A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(J-C)}$ K/W	Package Outline/page	Circuit
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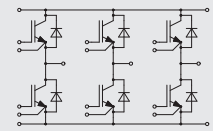
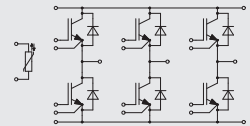
1200V 3 Phase Bridge with NTC

Advanced Trench FS IGBT, Low Loss

GD25FFY120C5S	1200	25	1.70	4.8	0.808	C5.2/24
GD35FFY120C5S	1200	35	1.70	6.1	0.629	C5.2/24
GD50FFY120C5S	1200	50	1.70	12.7	0.512	C5.2/24
GD75FFY120C5S	1200	75	1.70	14.4	0.394	C5.2/24
GD100FFY120C5S	1200	100	1.70	18.5	0.293	C5.2/24
GD75FFY120C6S	1200	75	1.70	14.4	0.394	C6.2/25
GD100FFY120C6S	1200	100	1.70	18.5	0.293	C6.2/25
GD150FFY120C6S	1200	150	1.70	26.1	0.170	C6.2/25
GD200FFY120C6S	1200	200	1.70	36.8	0.149	C6.2/25

NPT Low Loss

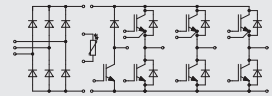
GD25FFK120C5SP	1200	25	2.20	5.5	0.576	C5.6/25
GD35FFK120C5SP	1200	35	2.20	7.9	0.707	C5.6/25
GD50FFK120C5SP	1200	50	2.20	12.5	0.332	C5.6/25
GD75FFK120C6S	1200	75	2.20	12.4	0.219	C6.2/25
GD100FFK120C6S	1200	100	2.20	18.3	0.219	C6.2/25



1200V PIM

Advanced Trench FS IGBT, Low Loss

GD10PIY120C5S	1200	10	1.70	2.3	1.279	C5.0/23
GD15PIY120C5S	1200	15	1.70	3.1	0.904	C5.0/23
GD25PIY120C5S	1200	25	1.70	4.8	0.728	C5.0/23
GD40PIY120C5S	1200	40	1.70	5.8	0.535	C5.0/23
GD25PIY120C5SN	1200	25	1.70	4.8	0.728	C5.3/24
GD35PIY120C5SN	1200	35	1.70	6.1	0.569	C5.3/24
GD50PIY120C5SN	1200	50	1.70	12.7	0.512	C5.3/24
GD40PIY120C6S	1200	40	1.70	5.8	0.535	C6.0/25
GD50PIY120C6S	1200	50	1.70	12.7	0.512	C6.0/25
GD75PIY120C6S	1200	75	1.70	14.4	0.394	C6.0/25
GD50PIY120C6SN	1200	50	1.70	12.7	0.512	C6.3/25
GD75PIY120C6SN	1200	75	1.70	14.4	0.394	C6.3/25
GD100PIY120C6SN	1200	100	1.70	18.5	0.293	C6.3/25
GD150PIY120C6SN	1200	150	1.70	26.1	0.170	C6.3/25



Low Power Modules 

Type	V_{CES} V	I_c A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(J-C)}$ K/W	Package Outline/page	Circuit
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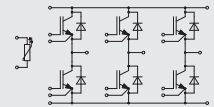
1700V 3 Phase Bridge with NTC

SPT+ Low Loss and Fast IGBT

GD75FFL170C6S	1700	75	2.40	47.6	0.273	C6.2/25
GD100FFL170C6S	1700	100	2.40	56.8	0.210	C6.2/25
GD150FFL170C6S	1700	150	2.40	101.0	0.169	C6.2/25
GD100FFL170C6SF	1700	100	2.40	56.8	0.210	C6.8/26
GD150FFL170C6SF	1700	150	2.40	101.0	0.169	C6.8/26

Trench FS IGBT,Low Loss

GD75FFX170C6S	1700	75	1.85	51.0	0.319	C6.2/25
GD100FFX170C6S	1700	100	1.85	62.4	0.245	C6.2/25
GD150FFX170C6S	1700	150	1.85	113.7	0.167	C6.2/25
GD100FFX170C6SF	1700	100	1.85	62.4	0.245	C6.8/26
GD150FFX170C6SF	1700	150	1.85	113.7	0.167	C6.8/26



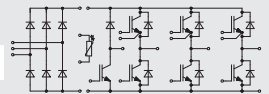
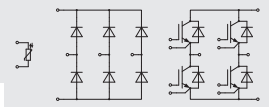
1700V PIM

SPT+ Low Loss and Fast IGBT

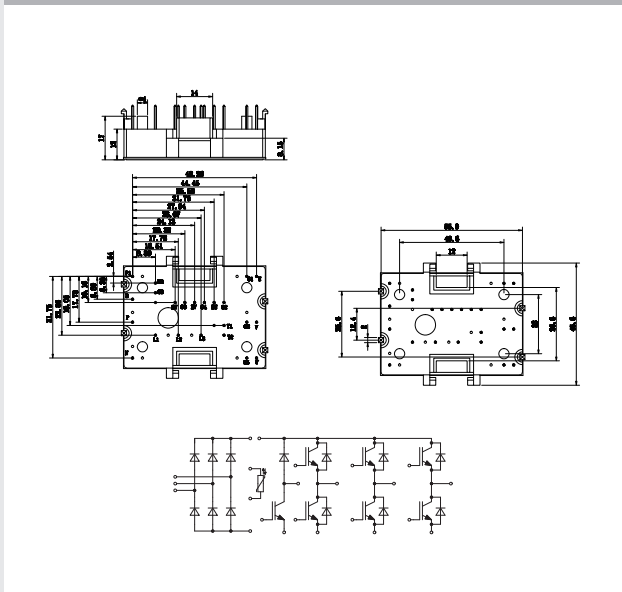
GD50PIL170C6S	1700	50	2.40	33.0	0.380	C6.0/25
GD75PIL170C6S	1700	75	2.40	47.6	0.273	C6.0/25

Trench FS IGBT,Low Loss

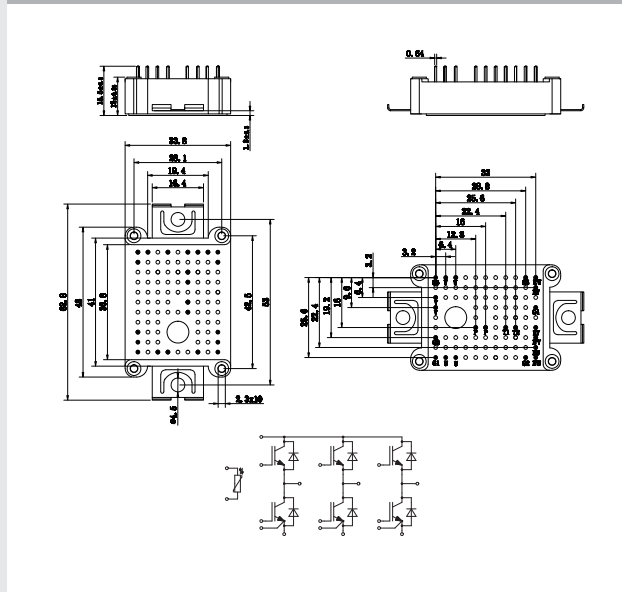
GD75PFX170C6S	1700	75	1.85	51.0	0.319	C6.7/26
GD100PFX170C6S	1700	100	1.85	62.4	0.245	C6.7/26
GD150PFX170C6S	1700	150	1.85	113.7	0.167	C6.7/26
GD50PIX170C6S	1700	50	1.85	31.3	0.455	C6.0/25
GD75PIX170C6S	1700	75	1.85	51.0	0.319	C6.0/25



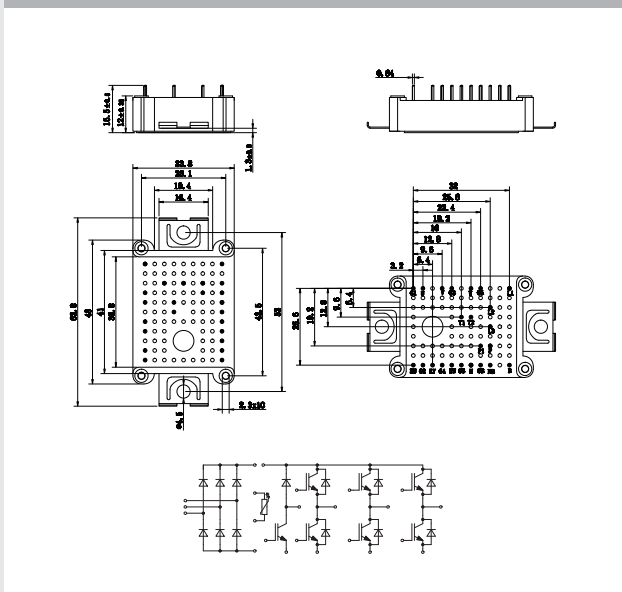
Case L1.2



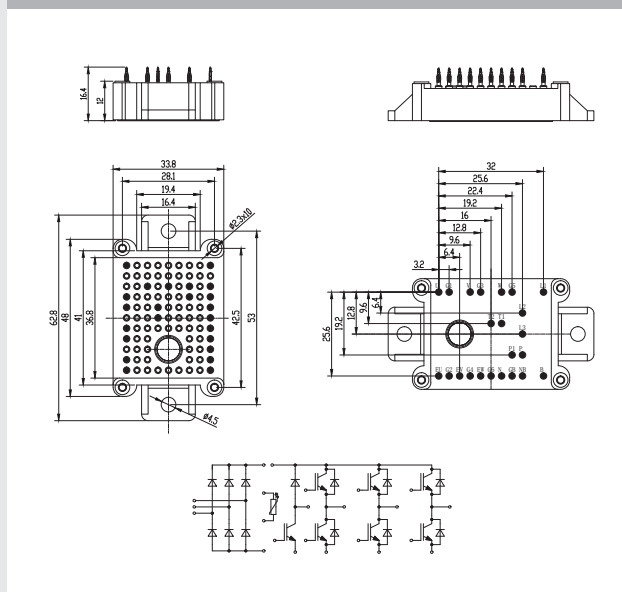
Case L2.1



Case L2.2

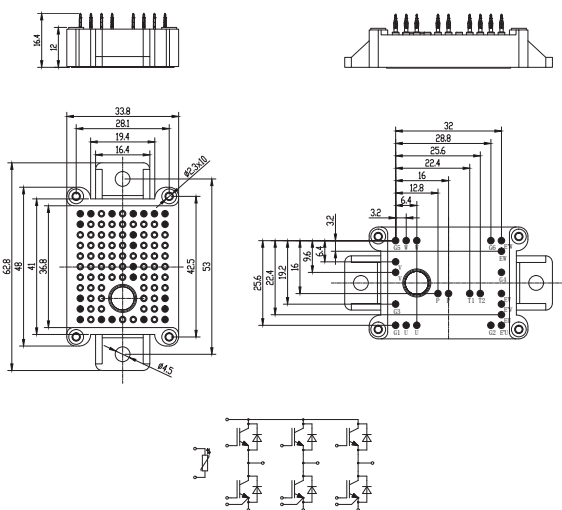


Case L2.5

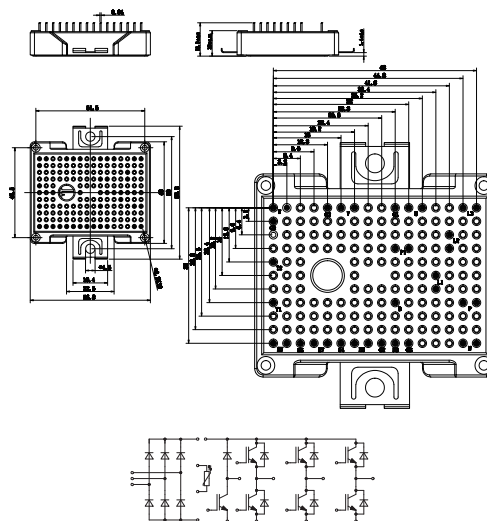


Low Power Module Package Outlines

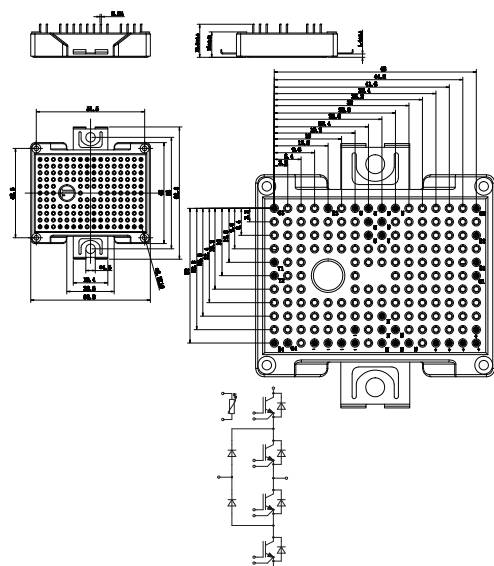
Case L2.6



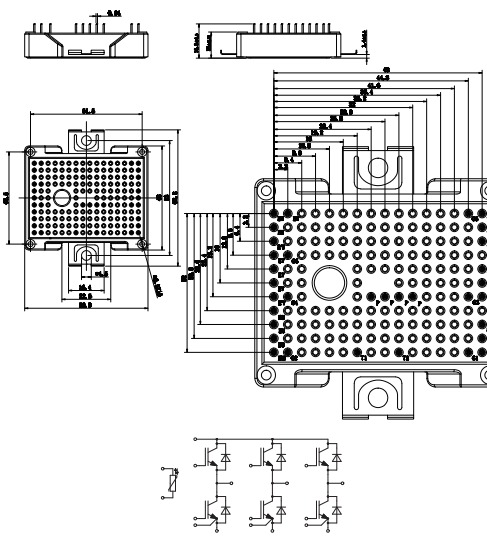
Case L3.0



Case L3.1

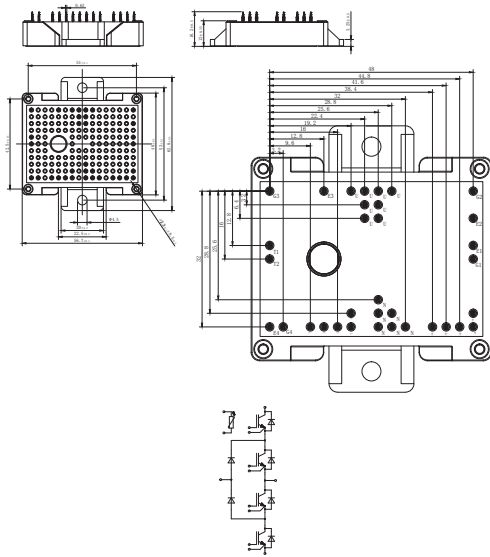


Case L3.2

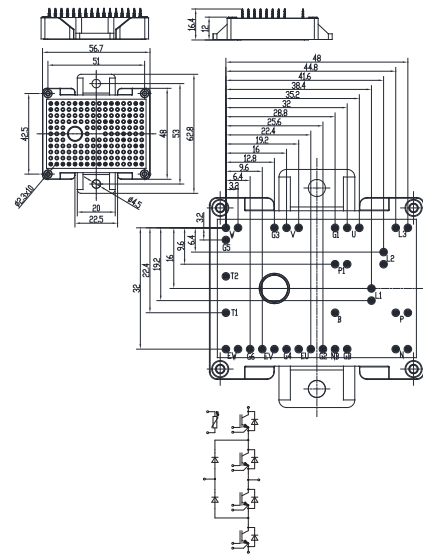




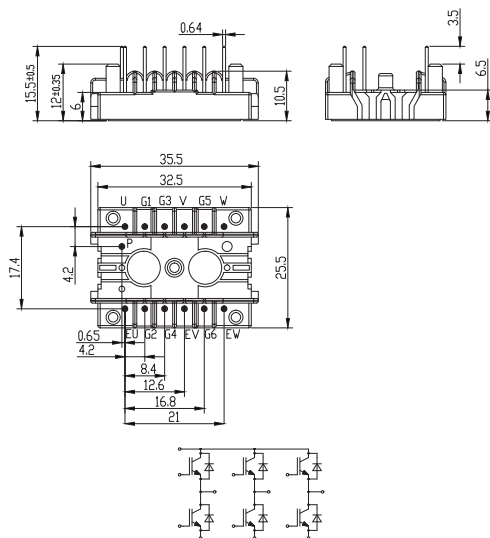
Case L3.3



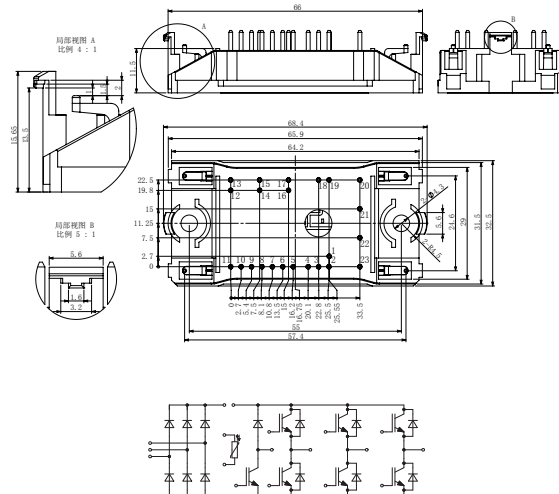
Case L3.5



Case L4.0

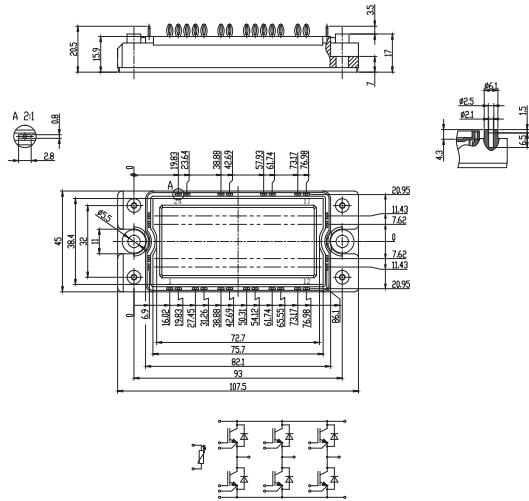


Case F1.1

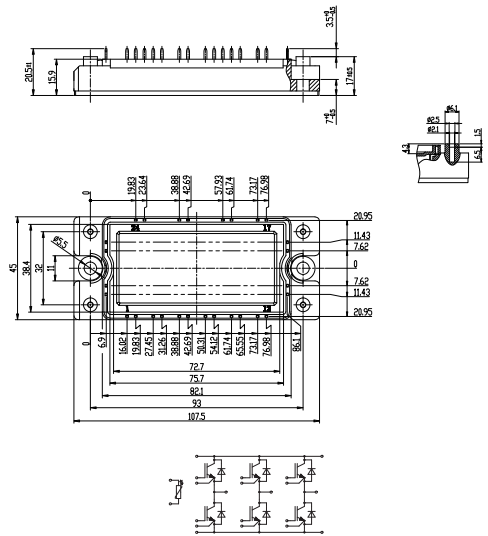


Low Power Module Package Outlines

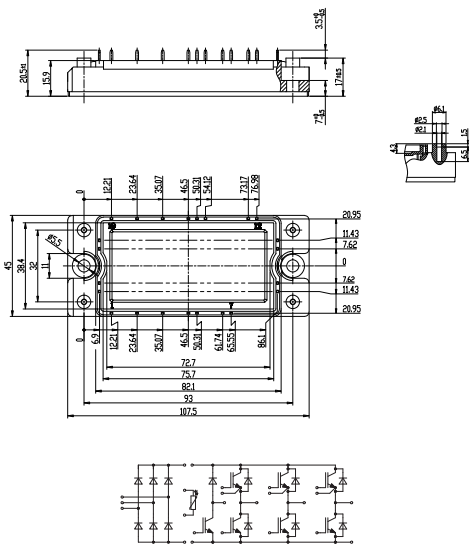
Case C5.12



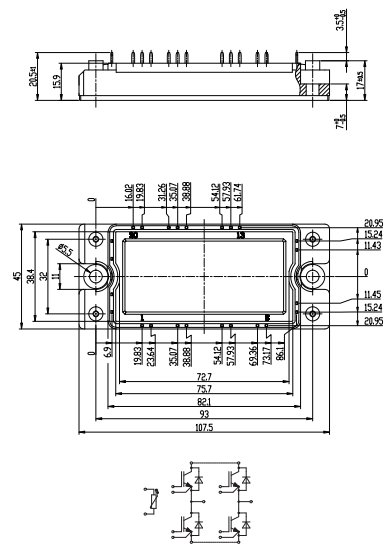
Case C5.2



Case C5.3

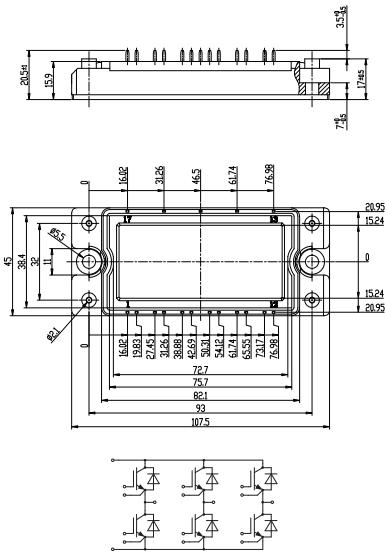


Case C5.4

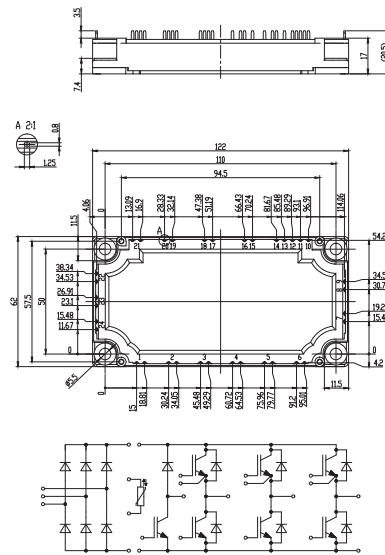




Case C5.6

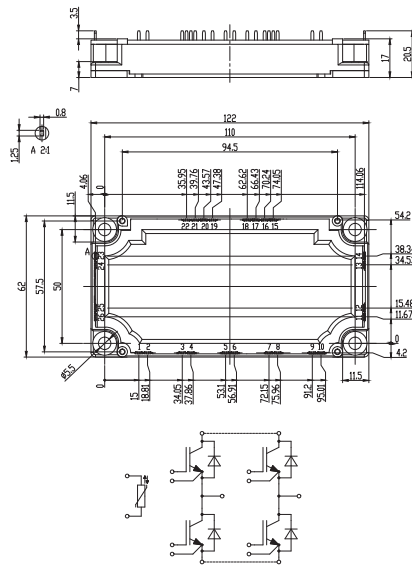


Case C6.0

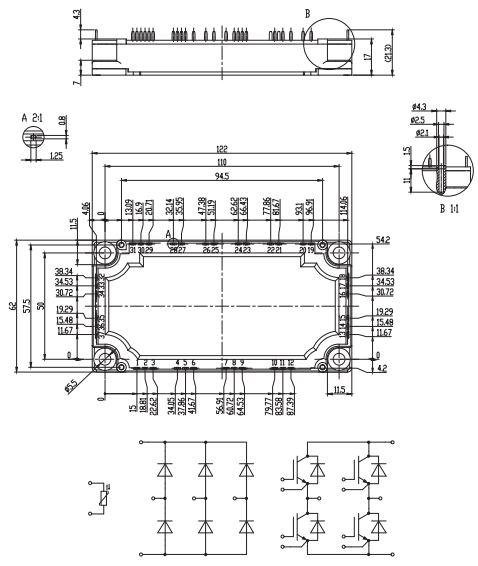


Low Power Module Package Outlines

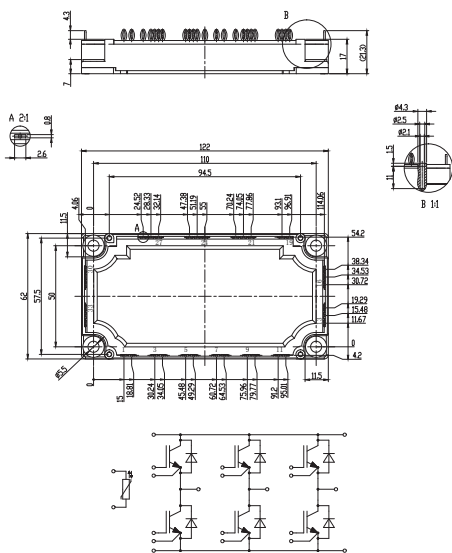
Case C6.4



Case C6.7



Case C6.8



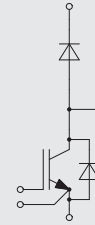


Type	V_{CES} V	I_C A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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650V Boost Chopper

Trench FS IGBT, Low Loss

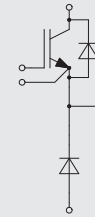
GD200CUX65C2S	650	200	1.45	6.9	0.245	C2.0/35
GD300CUX65C2S	650	300	1.45	12.7	0.157	C2.0/35
GD400CUX65C2S	650	400	1.45	16.2	0.121	C2.0/35
GD600CUX65C2S	650	600	1.45	29.9	0.080	C2.0/35



650V Buck Chopper

Trench FS IGBT, Low Loss

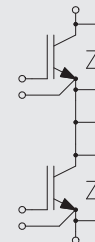
GD200CLX65C2S	650	200	1.45	6.9	0.245	C2.0/35
GD300CLX65C2S	650	300	1.45	12.7	0.157	C2.0/35
GD400CLX65C2S	650	400	1.45	16.2	0.121	C2.0/35
GD600CLX65C2S	650	600	1.45	29.9	0.080	C2.0/35



650V Half Bridge

Trench FS IGBT, Low Loss

GD50HFX65C1S	650	50	1.45	1.7	0.470	C1.0/35
GD75HFX65C1S	650	75	1.45	2.3	0.707	C1.0/35
GD100HFX65C1S	650	100	1.45	3.4	0.452	C1.0/35
GD150HFX65C1S	650	150	1.45	5.5	0.339	C1.0/35
GD200HFX65C1S	650	200	1.45	6.9	0.245	C1.0/35
GD200HFX65C2S	650	200	1.45	6.9	0.245	C2.0/35
GD300HFX65C2S	650	300	1.45	12.7	0.157	C2.0/35
GD400HFX65C2S	650	400	1.45	16.2	0.121	C2.0/35
GD600HFX65C2S	650	600	1.45	29.9	0.080	C2.0/35
GD200HFX65C8S	650	200	1.45	6.9	0.245	C8.0/36
GD300HFX65C8S	650	300	1.45	12.7	0.157	C8.0/36
GD400HFX65C8S	650	400	1.45	16.2	0.121	C8.0/36
GD200HFX65C8SN	650	200	1.45	6.9	0.245	C8.1/36
GD300HFX65C8SN	650	300	1.45	12.7	0.157	C8.1/36
GD400HFX65C8SN	650	400	1.45	16.2	0.121	C8.1/36



Medium Power Modules 

Type	V_{CES} V	I_c A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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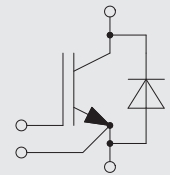
1200V Single

Advanced Trench FS IGBT, Low Loss

GD300SGY120C2S	1200	300	1.70	57.1	0.093	C2.1/35
GD400SGY120C2S	1200	400	1.70	86.8	0.072	C2.1/35
GD600SGY120C2S	1200	600	1.70	103.8	0.040	C2.1/35

NPT Ultra Fast IGBT

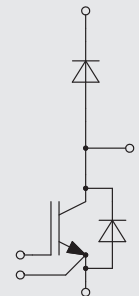
GD400SGU120C2S	1200	400	3.10	41.6	0.047	C2.1/35
GD600SGU120C2S	1200	600	3.10	130.8	0.031	C2.1/35



1200V Boost Chopper

Advanced Trench FS IGBT, Low Loss

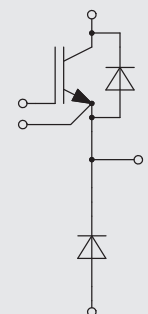
GD100CUY120C1S	1200	100	1.70	12.7	0.512	C1.0/35
GD150CUY120C1S	1200	150	1.70	14.4	0.394	C1.0/35
GD100CUY120C2S	1200	100	1.70	18.5	0.278	C2.0/35
GD150CUY120C2S	1200	150	1.70	26.1	0.203	C2.0/35
GD200CUY120C2S	1200	200	1.70	36.8	0.143	C2.0/35
GD300CUY120C2S	1200	300	1.70	57.1	0.093	C2.0/35
GD400CUY120C2S	1200	400	1.70	86.8	0.072	C2.0/35
GD450CUY120C2S	1200	450	1.70	89.8	0.063	C2.0/35
GD600CUY120C2S	1200	600	1.70	103.8	0.040	C2.0/35



1200V Buck Chopper

Advanced Trench FS IGBT, Low Loss

GD100CLY120C1S	1200	100	1.70	12.7	0.512	C1.0/35
GD150CLY120C1S	1200	150	1.70	14.4	0.394	C1.0/35
GD100CLY120C2S	1200	100	1.70	18.5	0.278	C2.0/35
GD150CLY120C2S	1200	150	1.70	26.1	0.203	C2.0/35
GD200CLY120C2S	1200	200	1.70	36.8	0.143	C2.0/35
GD300CLY120C2S	1200	300	1.70	57.1	0.093	C2.0/35
GD400CLY120C2S	1200	400	1.70	86.8	0.072	C2.0/35
GD450CLY120C2S	1200	450	1.70	89.8	0.063	C2.0/35
GD600CLY120C2S	1200	600	1.70	103.8	0.040	C2.0/35





Type	V_{CES} V	I_C A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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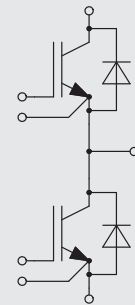
1200V Half Bridge

Advanced Trench FS IGBT, Low Loss

GD50Hfy120C1S	1200	50	1.70	12.7	0.512	C1.0/35
GD75Hfy120C1S	1200	75	1.70	14.4	0.394	C1.0/35
GD100Hfy120C1S	1200	100	1.70	18.5	0.278	C1.0/35
GD150Hfy120C1S	1200	150	1.70	26.1	0.203	C1.0/35
GD100Hfy120C2S	1200	100	1.70	18.5	0.278	C2.0/35
GD150Hfy120C2S	1200	150	1.70	26.1	0.203	C2.0/35
GD200Hfy120C2S	1200	200	1.70	36.8	0.143	C2.0/35
GD300Hfy120C2S	1200	300	1.70	57.1	0.093	C2.0/35
GD400Hfy120C2S	1200	400	1.70	86.8	0.072	C2.0/35
GD450Hfy120C2S	1200	450	1.70	89.8	0.063	C2.0/35
GD600Hfy120C2S	1200	600	1.70	103.8	0.040	C2.0/35
GD100Hfy120C8S	1200	100	1.70	18.5	0.278	C8.0/36
GD150Hfy120C8S	1200	150	1.70	26.1	0.203	C8.0/36
GD200Hfy120C8S	1200	200	1.70	36.8	0.143	C8.0/36
GD150Hfy120C8SN	1200	150	1.70	26.1	0.203	C8.1/36
GD200Hfy120C8SN	1200	200	1.70	36.8	0.143	C8.1/36

Advanced Trench FS Ultra Fast IGBT Without Short-circuit Capacity

GD50Hff120C1S	1200	50	1.70	9.1	0.512	C1.0/35
GD75Hff120C1S	1200	75	1.70	9.8	0.394	C1.0/35
GD100Hff120C1S	1200	100	1.70	16.3	0.278	C1.0/35
GD150Hff120C1S	1200	150	1.70	19.6	0.180	C1.0/35
GD100Hff120C2S	1200	100	1.70	16.3	0.278	C2.0/35
GD150Hff120C2S	1200	150	1.70	19.6	0.180	C2.0/35
GD200Hff120C2S	1200	200	1.70	32.7	0.142	C2.0/35
GD300Hff120C2S	1200	300	1.70	49.0	0.094	C2.0/35
GD400Hff120C2S	1200	400	1.70	65.2	0.066	C2.0/35



Medium Power Modules 

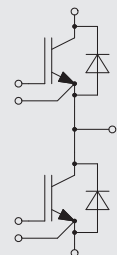
Type	V_{CES} V	I_C A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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NPT Low Loss

GD50HFK120C1S	1200	50	2.20	12.5	0.315	C1.0/35
GD75HFK120C1S	1200	75	2.20	12.4	0.229	C1.0/35
GD100HFK120C1S	1200	100	2.20	18.3	0.180	C1.0/35
GD100HFK120C2S	1200	100	2.20	18.3	0.165	C2.0/35
GD150HFK120C2S	1200	150	2.20	28.2	0.105	C2.0/35
GD200HFK120C2S	1200	200	2.20	41.1	0.092	C2.0/35
GD300HFK120C2S	1200	300	2.20	41.1	0.060	C2.0/35

NPT Ultra Fast IGBT

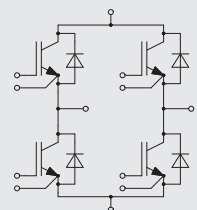
GD40HFU120C1S	1200	40	3.10	6.3	0.447	C1.0/35
GD50HFU120C1S	1200	50	3.10	7.9	0.302	C1.0/35
GD75HFU120C1S	1200	75	3.10	12.7	0.221	C1.0/35
GD100HFU120C1S	1200	100	3.10	12.5	0.190	C1.0/35
GD100HFU120C2S	1200	100	3.10	15.7	0.180	C2.0/35
GD150HFU120C2S	1200	150	3.10	21.5	0.108	C2.0/35
GD200HFU120C2S	1200	200	3.10	24.9	0.095	C2.0/35
GD300HFU120C2S	1200	300	3.10	32.7	0.063	C2.0/35
GD400HFU120C2S	1200	400	3.10	41.6	0.047	C2.0/35
GD100HFU120C8S	1200	100	3.10	10.3	0.158	C8.0/36
GD150HFU120C8S	1200	150	3.10	16.0	0.107	C8.0/36
GD200HFU120C8S	1200	200	3.10	24.9	0.095	C8.0/36
GD150HFU120C8SN	1200	150	3.10	16.0	0.107	C8.1/36
GD200HFU120C8SN	1200	200	3.10	24.9	0.095	C8.1/36



1200V H Bridge

NPT Ultra Fast IGBT

GD40HCU120C8S	1200	40	3.10	6.3	0.447	C8.2/36
GD50HCU120C8S	1200	50	3.10	7.9	0.312	C8.2/36
GD75HCU120C8S	1200	75	3.10	11.9	0.210	C8.2/36



Medium Power Modules



Type	V_{CES} V	I_C A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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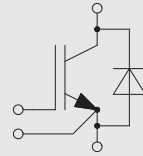
1700V Single

SPT+ Low Loss and Fast IGBT

GD400SGL170C2S	1700	400	2.40	167.7	0.054	C2.1/35
GD600SGL170C2S	1700	600	2.40	388.0	0.040	C2.1/35

Trench FS IGBT, Low Loss

GD400SGX170C2S	1700	400	1.85	304.0	0.062	C2.1/35
GD600SGX170C2S	1700	600	1.85	333.0	0.041	C2.1/35



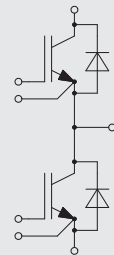
1700V Half Bridge

SPT+ Low Loss and Fast IGBT

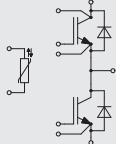
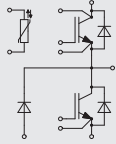
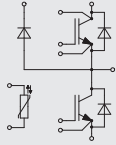
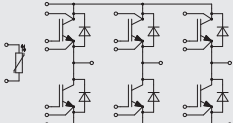
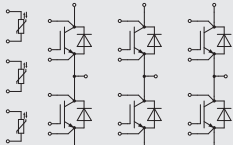
GD50HFL170C1S	1700	50	2.40	33.0	0.339	C1.0/35
GD75HFL170C1S	1700	75	2.40	47.6	0.262	C1.0/35
GD100HFL170C1S	1700	100	2.40	56.8	0.217	C1.0/35
GD100HFL170C2S	1700	100	2.40	63.3	0.217	C2.0/35
GD150HFL170C2S	1700	150	2.40	101.0	0.133	C2.0/35
GD200HFL170C2S	1700	200	2.40	152.1	0.108	C2.0/35
GD300HFL170C2S	1700	300	2.40	211.7	0.081	C2.0/35
GD400HFL170C2S	1700	400	2.40	167.7	0.054	C2.0/35

Trench FS IGBT, Low Loss

GD50HFX170C1S	1700	50	1.85	31.3	0.358	C1.0/35
GD75HFX170C1S	1700	75	1.85	51.0	0.268	C1.0/35
GD100HFX170C1S	1700	100	1.85	62.4	0.237	C1.0/35
GD100HFX170C2S	1700	100	1.85	62.4	0.237	C2.0/35
GD150HFX170C2S	1700	150	1.85	113.7	0.133	C2.0/35
GD200HFX170C2S	1700	200	1.85	143.7	0.118	C2.0/35
GD300HFX170C2S	1700	300	1.85	195.8	0.082	C2.0/35
GD400HFX170C2S	1700	400	1.85	304.0	0.062	C2.0/35



Medium Power Modules 

Type	V _{CE(S)} V	I _c A	V _{CE(sat)} @T _j =25°C typ. V	(E _{on} +E _{off}) @T _j =125°C typ. mJ	R _{th(j-c)} K/W	Package Outline/page	Circuit
650V Half Bridge							
Trench FS IGBT,Low Loss							
GD300HFX65C6S	650	300	1.45	12.7	0.148	C6.1/35	
GD450HFX65C6S	650	450	1.45	20.3	0.116	C6.1/35	
GD600HFX65C6S	650	600	1.45	29.9	0.091	C6.1/35	
GD300HFX65C6H	650	300	1.45	12.7	0.157	C6.12/36	
GD450HFX65C6H	650	450	1.45	20.3	0.116	C6.12/36	
GD600HFX65C6H	650	600	1.45	29.9	0.091	C6.12/36	
650V Half NPC1 Up							
Trench FS IGBT,Low Loss							
GD300MPX65C6S	650	300	1.45	12.7	0.157	C6.1/35	
GD400MPX65C6S	650	400	1.45	16.2	0.121	C6.1/35	
650V Half NPC1 Low							
Trench FS IGBT,Low Loss							
GD300MNX65C6S	650	300	1.45	12.7	0.157	C6.1/35	
GD400MNX65C6S	650	400	1.45	16.2	0.121	C6.1/35	
650V 3 Phase Bridge with NTC							
Trench FS IGBT,Low Loss							
GD200FFX65P3S	650	200	1.45	8.1	0.200	P3.0/37	
GD300FFX65P3S	650	300	1.45	12.7	0.168	P3.0/37	
GD400FFX65P3S	650	400	1.45	16.2	0.122	P3.0/37	
GD200FFX65P3H	650	200	1.45	8.1	0.400	P3.1/37	
GD300FFX65P3H	650	300	1.45	12.7	0.257	P3.1/37	
GD400FFX65P3H	650	400	1.45	16.2	0.200	P3.1/37	
650V Tri-Pack							
Trench FS IGBT,Low Loss							
GD600HTX65P4S	650	600	1.45	22.7	0.120	P4.0/37	
GD800HTX65P4S	650	800	1.45	28.0	0.100	P4.0/37	

Medium Power Modules



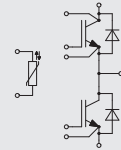
STARPOWER
YOUR BEST CHOICE

Type	V_{CES} V	I_C A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(J-C)}$ K/W	Package Outline/page	Circuit
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1200V Half Bridge

Advanced Trench FS IGBT, Low Loss

GD150HFY120C6S	1200	150	1.70	26.1	0.136	C6.1/35
GD225HFY120C6S	1200	225	1.70	40.7	0.122	C6.1/35
GD300HFY120C6S	1200	300	1.70	57.1	0.093	C6.1/35
GD450HFY120C6S	1200	450	1.70	89.8	0.069	C6.1/35
GD600HFY120C6S	1200	600	1.70	96.0	0.038	C6.1/35
GD150HFY120C6H	1200	150	1.70	26.1	0.136	C6.12/36
GD225HFY120C6H	1200	225	1.70	40.7	0.122	C6.12/36
GD300HFY120C6H	1200	300	1.70	57.1	0.093	C6.12/36
GD450HFY120C6H	1200	450	1.70	89.8	0.069	C6.12/36
GD600HFY120C6H	1200	600	1.70	96.0	0.038	C6.12/36



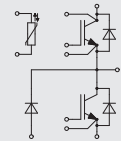
NPT Ultra Fast IGBT

GD150HFU120C6S	1200	150	3.10	23.7	0.106	C6.1/35
GD225HFU120C6S	1200	225	3.10	33.0	0.078	C6.1/35
GD300HFU120C6S	1200	300	3.10	32.7	0.066	C6.1/35

1200V Half NPC1 Up

Advanced Trench FS IGBT, Low Loss

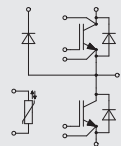
GD300MPY120C6S	1200	300	1.70	57.1	0.093	C6.1/35
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1200V Half NPC1 Low

Advanced Trench FS IGBT, Low Loss

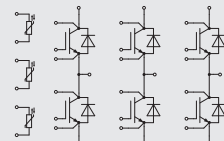
GD300MNY120C6S	1200	300	1.70	57.1	0.093	C6.1/35
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1200V Tri-Pack

Advanced Trench FS IGBT, Low Loss

GD400HTY120P4S	1200	400	1.70	46.4	0.110	P4.0/37
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Medium Power Modules 

Type	V_{CES} V	I_C A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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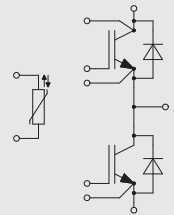
1700V Half Bridge

SPT+ Low Loss and Fast IGBT

GD150HFL170C6S	1700	150	2.40	101.0	0.117	C6.1/35
GD225HFL170C6S	1700	225	2.40	164.5	0.091	C6.1/35
GD300HFL170C6S	1700	300	2.40	205.0	0.074	C6.1/35
GD450HFL170C6S	1700	450	2.40	286.0	0.046	C6.1/35
GD600HFL170C6S	1700	600	2.40	371.0	0.035	C6.1/35

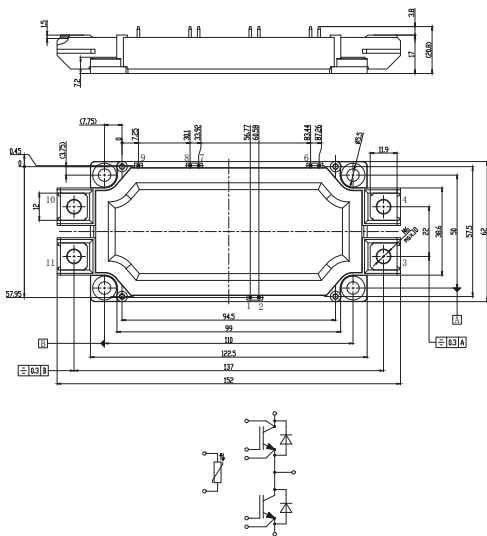
Trench FS IGBT, Low Loss

GD150HFX170C6S	1700	150	1.85	113.7	0.134	C6.1/35
GD225HFX170C6S	1700	225	1.85	157.0	0.113	C6.1/35
GD300HFX170C6S	1700	300	1.85	212.0	0.082	C6.1/35
GD450HFX170C6S	1700	450	1.85	323.0	0.059	C6.1/35
GD600HFX170C6S	1700	600	1.85	434.0	0.045	C6.1/35

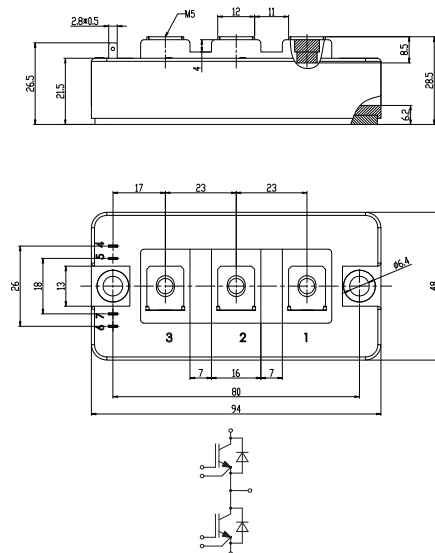


Medium Power Module Package Outlines 

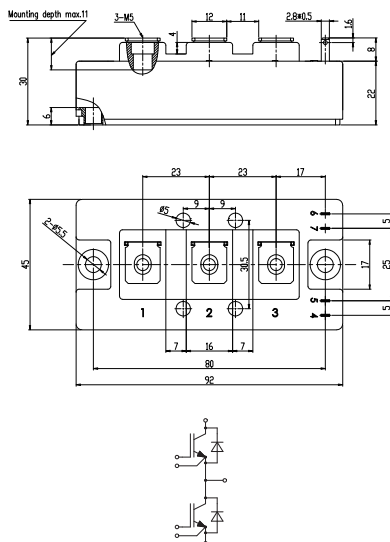
Case C6.12



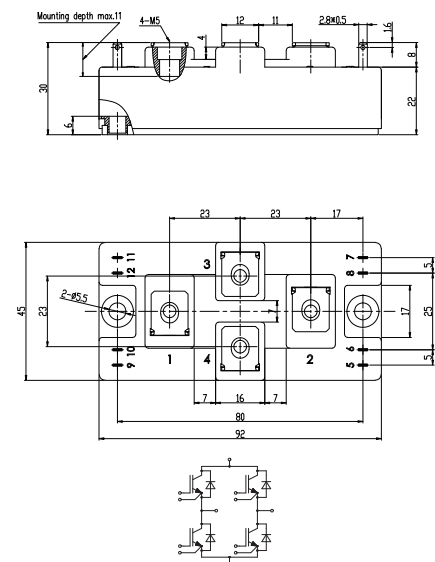
Case C8.0



Case C8.1

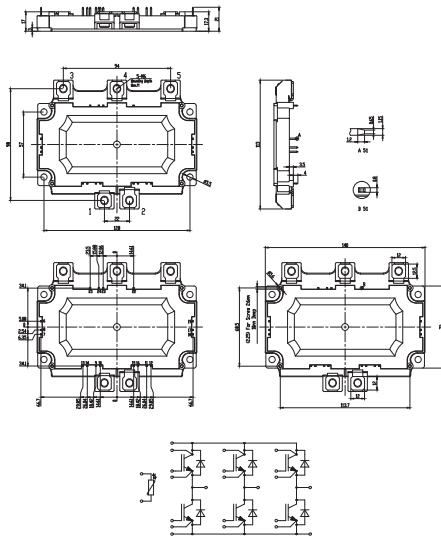


Case C8.2

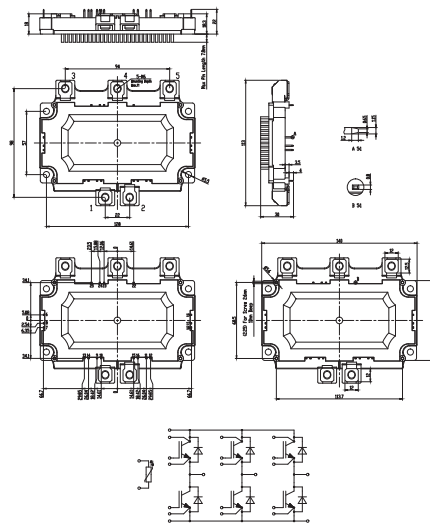




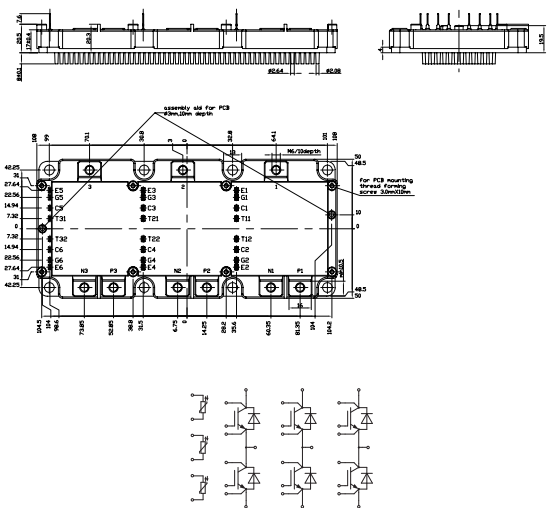
Case P3.0



Case P3.1



Case P4.0



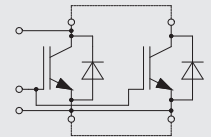
High Power Modules 

Type	V_{CES} V	I_c A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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1200V Single

Advanced Trench FS IGBT, Low Loss

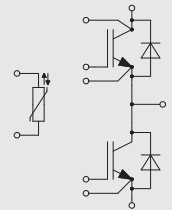
GD800SGY120C3S	1200	800	1.70	154	0.028	C3.0/40
GD1200SGY120C3S	1200	1200	1.70	387	0.020	C3.0/40
GD1600SGY120C3S	1200	1600	1.70	573	0.015	C3.0/40
GD2400SGY120C3S	1200	2400	1.70	945	0.011	C3.0/40
GD800SGY120C3SN	1200	800	1.70	154	0.028	C3.2/40
GD1200SGY120C3SN	1200	1200	1.70	387	0.020	C3.2/40
GD1600SGY120C3SN	1200	1600	1.70	573	0.015	C3.2/40
GD2400SGY120C3SN	1200	2400	1.70	945	0.011	C3.2/40
GD2400SGY120C4S	1200	2400	1.70	945	0.011	C4.0/40
GD3600SGY120C4S	1200	3600	1.70	1377	0.008	C4.0/40



1200V Half Bridge with NTC

Trench FS IGBT, Low Loss

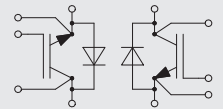
GD450HFY120P1S	1200	450	1.70	103	0.058	P1.0/41
GD600HFY120P1S	1200	600	1.70	124	0.045	P1.0/41
GD900HFY120P1S	1200	900	1.70	240	0.029	P1.0/41
GD1400HFY120P2S	1200	1400	1.70	331	0.019	P2.0/41



1200V Half Bridge

Advanced Trench FS IGBT, Low Loss

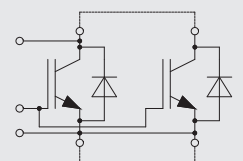
GD600HFY120C3S	1200	600	1.70	96	0.044	C3.1/40
GD800HFY120C3S	1200	800	1.70	174	0.032	C3.1/40
GD1200HFY120C3S	1200	1200	1.70	439	0.025	C3.1/40



1700V Single

SPT+ Low Loss and Fast IGBT

GD800SGL170C3S	1700	800	2.40	512	0.021	C3.0/40
GD1200SGL170C3S	1700	1200	2.40	674	0.017	C3.0/40
GD1600SGL170C3S	1700	1600	2.40	1070	0.013	C3.0/40
GD2400SGL170C3S	1700	2400	2.40	1580	0.010	C3.0/40
GD800SGL170C3SN	1700	800	2.40	512	0.021	C3.2/40
GD1200SGL170C3SN	1700	1200	2.40	674	0.017	C3.2/40
GD1600SGL170C3SN	1700	1600	2.40	1070	0.013	C3.2/40
GD2400SGL170C3SN	1700	2400	2.40	1580	0.010	C3.2/40





Type	V_{CES} V	I_c A	$V_{CE(sat)}$ @ $T_j=25^\circ\text{C}$ typ. V	$(E_{on}+E_{off})$ @ $T_j=125^\circ\text{C}$ typ. mJ	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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GD2400SGL170C4S	1700	2400	2.40	1580	0.009	C4.0/40
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GD3600SGL170C4S	1700	3600	2.40	2328	0.006	C4.0/40
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Trench FS IGBT,Low Loss

GD800SGX170C3S	1700	800	1.85	605	0.026	C3.0/40
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GD1200SGX170C3S	1700	1200	1.85	867	0.019	C3.0/40
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GD1600SGX170C3S	1700	1600	1.85	1190	0.015	C3.0/40
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GD2400SGX170C3S	1700	2400	1.85	1554	0.011	C3.0/40
-----------------	------	------	------	------	-------	---------

GD800SGX170C3SN	1700	800	1.85	605	0.026	C3.2/40
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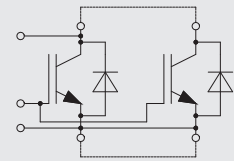
GD1200SGX170C3SN	1700	1200	1.85	867	0.019	C3.2/40
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GD1600SGX170C3SN	1700	1600	1.85	1190	0.015	C3.2/40
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GD2400SGX170C3SN	1700	2400	1.85	1554	0.011	C3.2/40
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GD2400SGX170C4S	1700	2400	1.85	1554	0.010	C4.0/40
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GD3600SGX170C4S	1700	3600	1.85	2698	0.007	C4.0/40
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1700V Half Bridge with NTC

SPT+ Low Loss and Fast IGBT

GD650HFL170P1S	1700	650	2.40	505	0.035	P1.0/41
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GD1000HFL170P2S	1700	1000	2.40	590	0.023	P2.0/41
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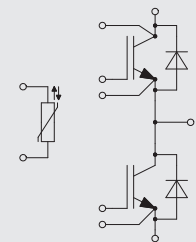
Trench FS IGBT,Low Loss

GD450HFX170P1S	1700	450	1.85	379	0.055	P1.0/41
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GD650HFX170P1S	1700	600	1.85	563	0.038	P1.0/41
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GD1000HFX170P2S	1700	1000	1.85	763	0.025	P2.0/41
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GD1400HFX170P2S	1700	1400	1.85	1250	0.016	P2.0/41
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1700V Half Bridge

SPT+ Low Loss and Fast IGBT

GD600HFL170C3S	1700	600	2.40	371	0.033	C3.1/40
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GD800HFL170C3S	1700	800	2.40	512	0.026	C3.1/40
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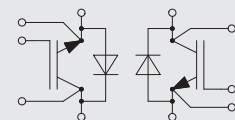
GD1200HFL170C3S	1700	1200	2.40	674	0.022	C3.1/40
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Trench FS IGBT,Low Loss

GD600HFX170C3S	1700	600	1.85	434	0.034	C3.1/40
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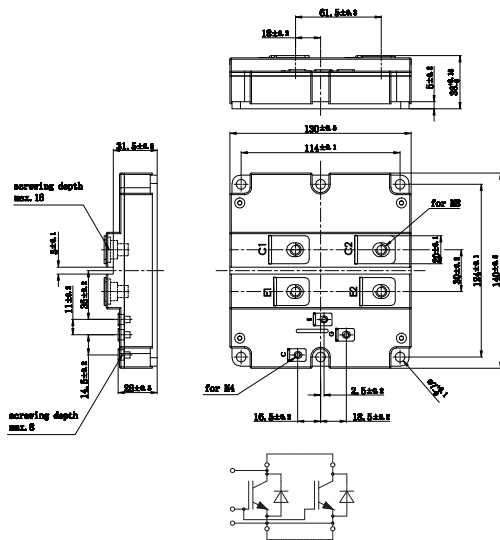
GD800HFX170C3S	1700	800	1.85	605	0.031	C3.1/40
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GD1200HFX170C3S	1700	1200	1.85	867	0.024	C3.1/40
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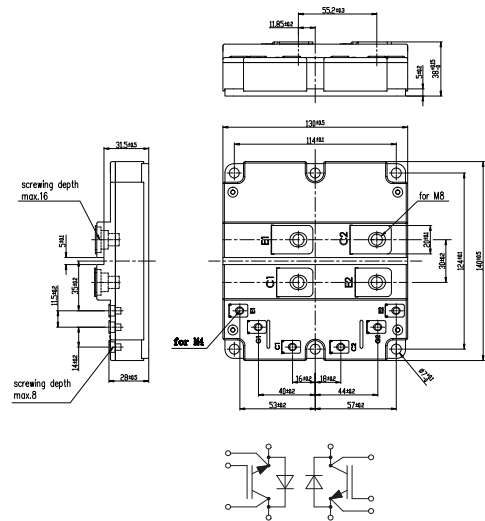


High Power Module Package Outlines 

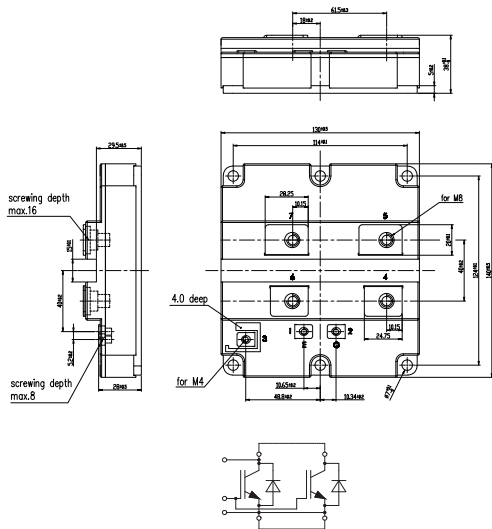
Case C3.0



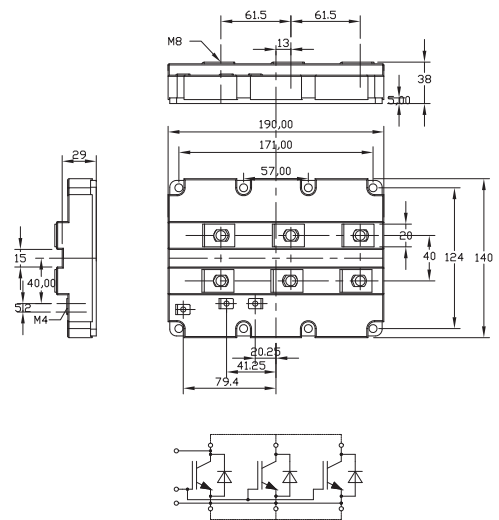
Case C3.1



Case C3.2

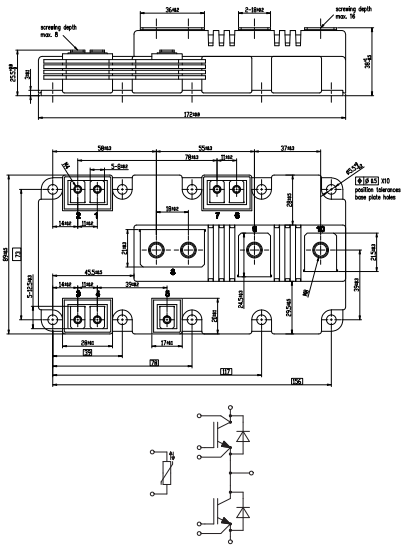


Case C4.0

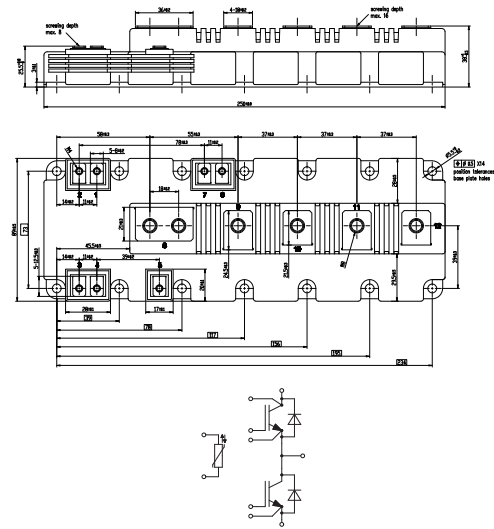




Case P1.0



Case P2.0

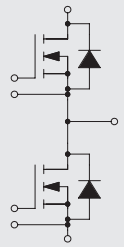


SiC Mosfet Modules 

Type	V_{DSS} V	I_b A	$R_{DS(on)}$ @ $T_j=25^\circ\text{C}$ max. mOhm	$R_{th(j-c)}$ K/W	Package Outline/page	Circuit
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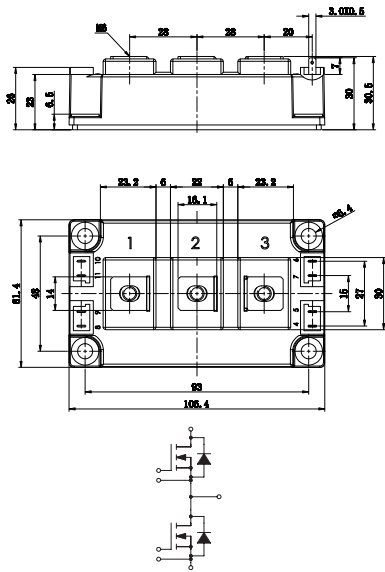
SiC Mosfet

MD120HFR120C2S	1200	120	13	0.181	C2.0/43
MD300HFR120C2S	1200	300	6.5	0.100	C2.0/43
MD400HFR120C2S	1200	400	4.4	0.074	C2.0/43
MD200HFR170C2S	1700	200	8.7	0.058	C2.0/43
MD250HFR170C2S	1700	250	10.4	0.069	C2.0/43
MD120HFR120B3S	1200	120	13	0.181	B3.7/43
MD300HFR120B3S	1200	300	6.5	0.100	B3.7/43
MD400HFR120B3S	1200	400	4.4	0.074	B3.7/43
MD200HFR170B3S	1700	200	8.7	0.058	B3.7/43
MD250HFR170B3S	1700	250	10.4	0.069	B3.7/43

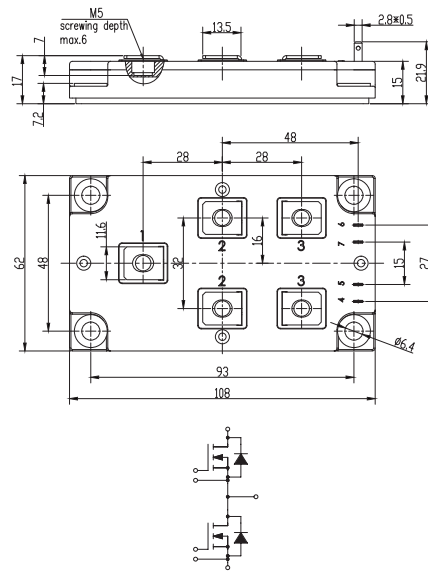




Case C2.0



Case B3.7





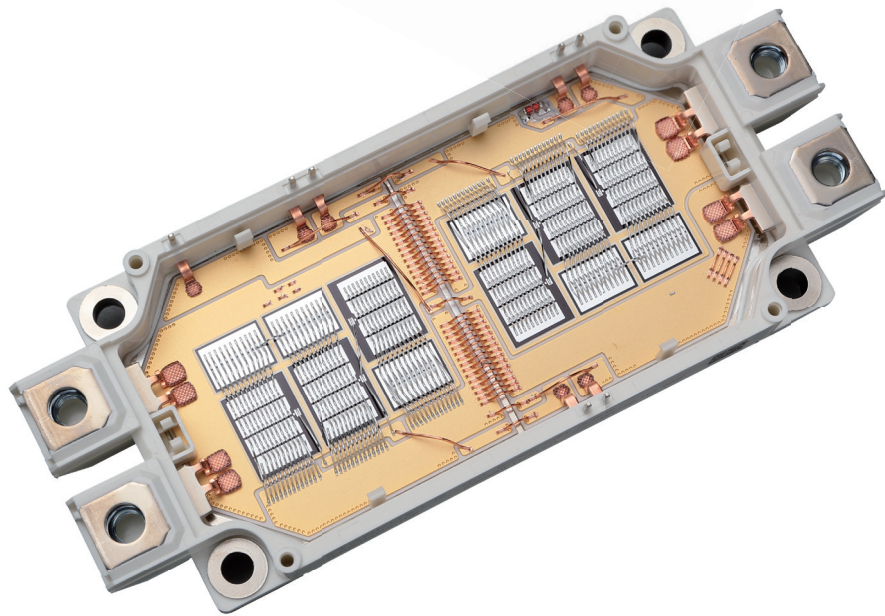
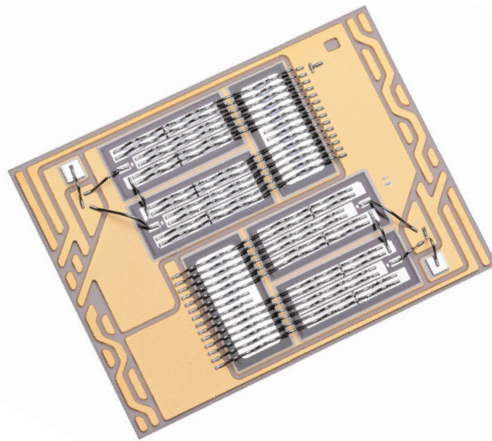
Note:

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Sintering Process For High Reliability



Features and Benefits

- Chip mounting by sinter interconnects
- Increased operation temperature to 175 °C
- Increased thermal and power cycling capabilities
- Low thermal resistance
- Better suited for high reliability, such as EV/HEV applications

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