

Silicon Carbide (SiC) Merged-PiN-Schottky (MPS™) Diode

GeneSiC's new generation of SiC diodes feature the combination of excellent forward and switching characteristics with best-in-class robustness and thermal conductivity.



G - GeneSiC Semiconductor

C - Technology Generation (or B)

2X - Common Cathode or Dual Diode (or Blank if Single Diode)

10 - Continuous Forward Current (A) Rating at Rated Forward Voltage (V_F)

MPS - Merged PiN-Schottky (MPS™) Series (or SLT Series)

12 - Repetitive Peak Reverse Voltage Multiplier * 100 (V)

247 - Industry Standard Package Code

214 - DO-214

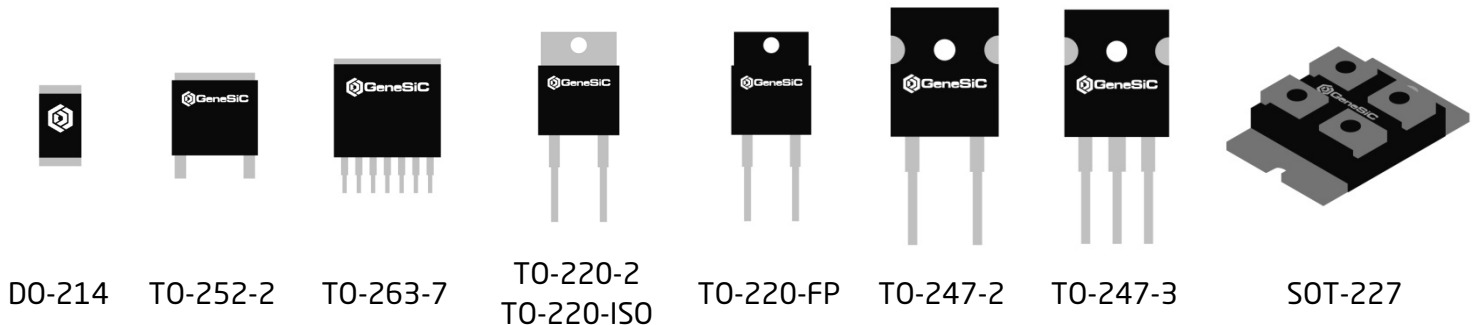
252 - TO-252-2 (DPAK-2)

263 - TO-263-7 (D2PAK-7)

220 - TO-220-2 or TO-220-ISO or TO-220-FP

247 - TO-247-2 or TO-247-3 (Common Cathode Diode)

227 - SOT-227 (Dual Diode Module)



Features

- ✓ High Avalanche (UIS) Capability
- ✓ Enhanced Surge Current Capability
- ✓ Superior Figure of Merit Q_C/I_F
- ✓ Low Thermal Resistance
- ✓ 175 °C Maximum Operating Temperature
- ✓ Temperature Independent Fast Switching
- ✓ Positive Temperature Coefficient of V_F

Benefits

- ✓ Low Standby Power Losses
- ✓ Improved Circuit Efficiency (Lower Overall Cost)
- ✓ Low Switching Losses
- ✓ Ease of Paralleling without Thermal Runaway
- ✓ Smaller Heat Sink Requirements
- ✓ Low Reverse Recovery Current
- ✓ Low Device Capacitance

650 V

Forward Current I_F	Bare Chip	D0-214	T0-247-2	SOT-227
1 A	✓	✓		
50 A	✓		✓	
100 A				✓
200 A				✓

1200 V

Forward Current I_F	Bare Chip	D0-214	T0-252-2	T0-220-2	T0-247-2	T0-247-3	SOT-227
1 A	✓	✓	✓				
2 A	✓	✓	✓	✓			
5 A	✓		✓	✓			
8 A	✓		✓	✓			
10 A	✓		✓	✓		✓	
15 A	✓			✓	✓	✓	
20 A	✓			✓	✓	✓	
30 A						✓	
40 A						✓	
50 A	✓				✓		
100 A							✓
200 A							✓

1700 V

Forward Current I_F	Bare Chip	T0-247-2	SOT-227
5 A	✓	✓	
10 A		✓	
25 A	✓	✓	
50 A		✓	
100 A			✓

3300 V

Forward Current I_F	Bare Chip	D0-214	T0-220-FP	T0-263-7
0.3 A	✓	✓	✓	
5 A				✓

650 V

Part Number	Package	Forward Current (I _F)
GB01SLT06-214	D0-214	1 A
GC50MPS06-247	T0-247-2	50 A
GC2X50MPS06-227	SOT-227	100 A
GC2X100MPS06-227	SOT-227	200 A

1200 V

Part Number	Package	Forward Current (I _F)
GB01SLT12-214	D0-214	1 A
GB01SLT12-252	T0-252-2	1 A
GB02SLT12-214	D0-214	2 A
GB02SLT12-252	T0-252-2	2 A
GC02MPS12-220	T0-220-2	2 A
GB05SLT12-252	T0-252-2	5 A
GC05MPS12-252	T0-252-2	5 A
GC05MPS12-220	T0-220-2	5 A
GC08MPS12-252	T0-252-2	8 A
GC08MPS12-220	T0-220-2	8 A
GB10SLT12-252	T0-252-2	10 A
GC10MPS12-252	T0-252-2	10 A
GC10MPS12-220	T0-220-2	10 A
GC2X5MPS12-247	T0-247-3	10 A
GC15MPS12-220	T0-220-2	15 A
GC15MPS12-247	T0-247-2	15 A
GC2X8MPS12-247	T0-247-3	15 A
GC20MPS12-220	T0-220-2	20 A
GB20SLT12-247	T0-247-2	20 A
GC20MPS12-247	T0-247-2	20 A
GC2X10MPS12-247	T0-247-3	20 A
GC2X15MPS12-247	T0-247-3	30 A
GC2X20MPS12-247	T0-247-3	40 A
GB50SLT12-247	T0-247-2	50 A
GC50MPS12-247	T0-247-2	50 A
GB2X50MPS12-227	SOT-227	100 A
GB2X100MPS12-227	SOT-227	200 A

1700 V

Part Number	Package	Forward Current (I _F)
GB05MPS17-247	TO-247-2	5 A
GB10MPS17-247	TO-247-2	10 A
GB25MPS17-247	TO-247-2	25 A
GB50MPS17-247	TO-247-2	50 A
GB2X50MPS17-247	SOT-227	100 A

3300 V

Part Number	Package	Forward Current (I _F)
GAP3SLT33-214	DO-214	0.3 A
GAP3SLT33-220FP	TO-220-FP	0.3 A
GB05MPS33-263	TO-263-7	5 A

Bare Chip

Part Number	Repetitive Reverse Voltage (V _{RRM})	Forward Current (I _F)
GC01MPS06-CAL	650 V	1 A
GC50MPS06-CAL		50 A
GC01MPS12-CAL	1200 V	1 A
GC02MPS12-CAL		2 A
GC05MPS12-CAL		5 A
GC08MPS12-CAL		8 A
GC10MPS12-CAL		10 A
GC15MPS12-CAL		15 A
GC20MPS12-CAL		20 A
GC50MPS12-CAL		50 A
GC05MPS17-CAL	1700 V	5 A
GC25MPS17-CAL		25 A
GAP3SHT33-CAU	3300 V	1 A

Learn More

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- ✓ Application Notes
- ✓ SPICE Models (Level-III) and CAD Models
- ✓ Evaluation Boards
- ✓ Reference Designs
- ✓ Technical Articles

Have additional questions?

Contact us at sales@genesicsemi.com or **+1 703 996 8200**