

SiC Schottky MPS™

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

B, C, D, E – Technology Generation (D = 4th Generation, E = 5th Generation)

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

30 – Forward Current (A) Rating at Rated Forward Voltage (V_F)

MPS, SLT, SHT – MPS = Schottky MPS™ Series / SLT, SHT = Schottky JBS

06, 12, 17, 33 – Repetitive Peak Reverse Voltage Multiplier * 100 (V)

227, N – Industry Standard Package Code

214, S – DO-214

252, A – TO-252-2 (DPAK-2)

263, J – TO-263-7 (D2PAK-7)

220, A – TO-220-2 or TO-220-ISO or TO-220-FP

247, H, D – TO-247-2 (H) or TO-247-3 (D) (Common Cathode)

227, N – SOT-227 (Dual Diode / Mini-Module)



DO-214

TO-252-2

TO-263-7

TO-220-2

TO-220-FP

TO-247-2

TO-247-3

SOT-227


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

- ✓ Superior System Ruggedness
- ✓ Improved Circuit Efficiency (Low Power Losses)
- ✓ Zero Recovery Losses
- ✓ Smaller Heat Sink Requirements
- ✓ High Temperature Operation with Low Losses
- ✓ Zero Recovery Losses
- ✓ Ease of Paralleling without Thermal Runaway





650 V

Current I_F	Chip	DO-214	TO-252-2	TO-263-7	TO-220-2	TO-247-2	TO-247-3	SOT-227
1 A		✓						
4 A			✓		✓			
6 A			✓		✓			
8 A			✓		✓			
10 A			✓		✓			
12 A					✓			
16 A							✓	
20 A							✓	
30 A	✓			✓		✓		
50 A	✓					✓		
60 A								✓
100 A								✓
200 A								✓





1200 V

Current I_F	Chip	DO-214	TO-252-2	TO-220-2	TO-247-2	TO-247-3	SOT-227
1 A		✓	✓				
2 A		✓	✓	✓			
5 A			✓				
8 A			✓	✓			
10 A			✓	✓		✓	
15 A	✓			✓	✓	✓	
20 A	✓			✓	✓	✓	
30 A	✓					✓	
40 A						✓	
50 A	✓				✓		
60 A							✓
100 A	✓						✓
200 A							✓

1700 V

Current I_F	Chip	TO-263-7	TO-247-2	SOT-227
5 A				
10 A		✓	✓	
25 A	✓		✓	
50 A			✓	
75 A	✓			
100 A				✓
150 A				✓

3300 V

Current I_F	Chip	DO-214	TO-263-7	TO-220FP
0.3 A				
5 A	✓	✓	✓	✓
50 A	✓			

Discrete Product List

Voltage	Part Number	Package	Forward Current (I _F)
650 V	GB01SLT06-214	DO-214	1 A
	GE04MPS06E	TO-252-2	4 A
	GE04MPS06A	TO-220-2	4 A
	GE06MPS06E	TO-252-2	6 A
	GE06MPS06A	TO-220-2	6 A
	GE08MPS06E	TO-252-2	8 A
	GE08MPS06A	TO-220-2	8 A
	GE10MPS06E	TO-252-2	10 A
	GE10MPS06A	TO-220-2	10 A
	GE12MPS06A	TO-220-2	12 A
	GE2X8MPS06D	TO-247-3	16 A
	GE2X10MPS06D	TO-247-3	20 A
	GD30MPS06J	TO-263-7	30 A
	GD30MPS06H	TO-247-2	30 A
	GC50MPS06-247	TO-247-2	50 A
	GD2X30MPS06N	SOT-227	60 A
	GC2X50MPS06-227	SOT-227	100 A
	GC2X100MPS06-227	SOT-227	200 A
1200 V	GB01SLT12-214	DO-214	1 A
	GB01SLT12-252	TO-252-2	1 A
	GB02SLT12-214	DO-214	2 A
	GB02SLT12-252	TO-252-2	2 A
	GC02MPS12-220	TO-220-2	2 A
	GB05SLT12-252	TO-252-2	5 A
	GC05MPS12-252	TO-252-2	5 A
	GC08MPS12-252	TO-252-2	8 A
	GC08MPS12-220	TO-220-2	8 A
	GB10SLT12-252	TO-252-2	10 A
	GC10MPS12-252	TO-252-2	10 A
	GC10MPS12-220	TO-220-2	10 A
	GC2X5MPS12-247	TO-247-3	10 A
	GC15MPS12-220	TO-220-2	15 A
	GC15MPS12-247	TO-247-2	15 A
	GC2X8MPS12-247	TO-247-3	15 A
	GC20MPS12-220	TO-220-2	20 A
	GB20SLT12-247	TO-247-2	20 A
	GC20MPS12-247	TO-247-2	20 A
	GC2X10MPS12-247	TO-247-3	20 A
GC2X15MPS12-247	TO-247-3	30 A	

1200 V	GC2X20MPS12-247	TO-247-3	40 A
	GB50SLT12-247	TO-247-2	50 A
	GC50MPS12-247	TO-247-2	50 A
	GD2X30MPS12N	SOT-227	60 A
	GB2X50MPS12-227	SOT-227	100 A
	GB2X100MPS12-227	SOT-227	200 A
1700 V	GB05MPS17-247	TO-247-2	5 A
	GB05MPS17-263	TO-263-7	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
	GD2X75MPS17N	SOT-227	150 A
3300 V	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	Voltage (V_{RRM})	Forward Current (I_F)
GC50MPS06-CAL	650 V	50 A
GC15MPS12-CAL	1200 V	15 A
GC20MPS12-CAL		20 A
GC50MPS12-CAL		50 A
GD100MPS12-CAL		100 A
GC25MPS17-CAL	1700 V	25 A
GD75MPS17-CAL		75 A
GAP3SHT33-CAU	3300 V	0.3 A
GC50MPS33-CAL		50 A

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