

GSK32B thru GSK320B

Surface Mount Schottky Rectifiers
 Reverse Voltage 20V-200V Forward Current 3.0 A

Features

- Low profile package
- Ideal for automated placement
- Guardring for over voltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C



DO-214AA (SMB)

Mechanical Data

- Package: DO-214AA (SMB)
Molding compound meets UL 94V-0 flammability rating, RoHS compliant, halogen-free
- Terminals: Tin plated leads, solderable per STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	GSK 32B	GSK 33B	GSK 34B	GSK 35B	GSK 36B	GSK 38B	GSK 310B	GSK 315B	GSK 320B	Units
Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V
Average Rectified Output Current @ 60Hz Sine Wave, Resistance Load, T _C (FIG.1)	I _O	3.0									A
Surge (Non-Repetitive) Forward Current @ 60Hz Half-Sine Wave, 1 cycle, T _A =25°C	I _{FSM}	80									A
Thermal Resistance ¹	R _{θJA}	77									°C/W
	R _{θJC}	40									°C/W
Storage Temperature	T _{STG}	-55 to +150									°C
Junction Temperature	T _J	-55 to +150					-55 to +175				°C

Note:

1. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16mm) copper pad areas.

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	GSK 32B	GSK 33B	GSK 34B	GSK 35B	GSK 36B	GSK 38B	GSK 310B	GSK 315B	GSK 320B	Units
Maximum Instantaneous Forward Voltage Drop Per Diode	V _F	I _{FM} =3.0A	0.55		0.70		0.85		0.90		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage @ V _{RM} =V _{RRM}	I _{RRM}	T _A =25°C	0.50				0.10				mA	
		T _A =100°C	10				5					

Typical Characteristics Curves

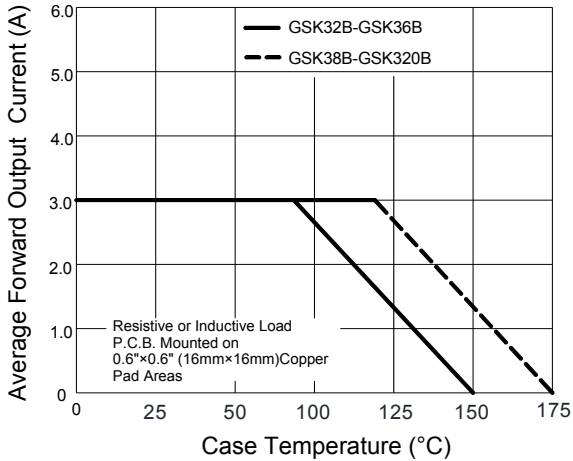


Figure 1. I_o - T_c Curve

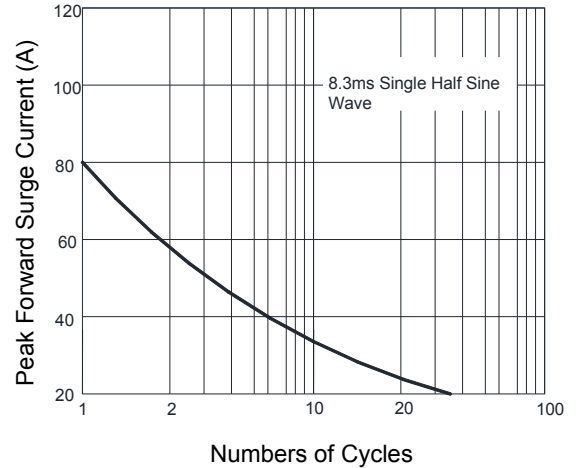


Figure 2. Surge Forward Current Capability

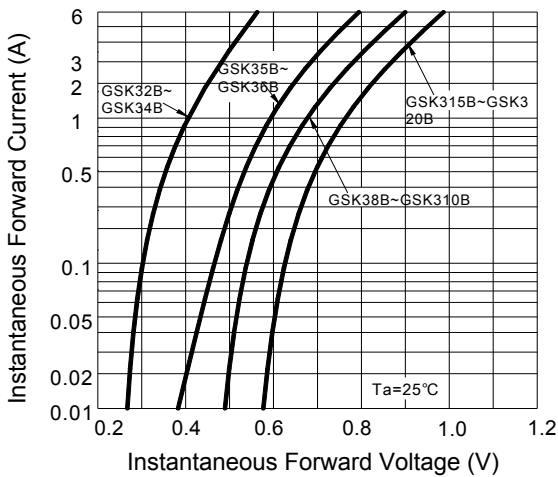


Figure 3. Forward Voltage

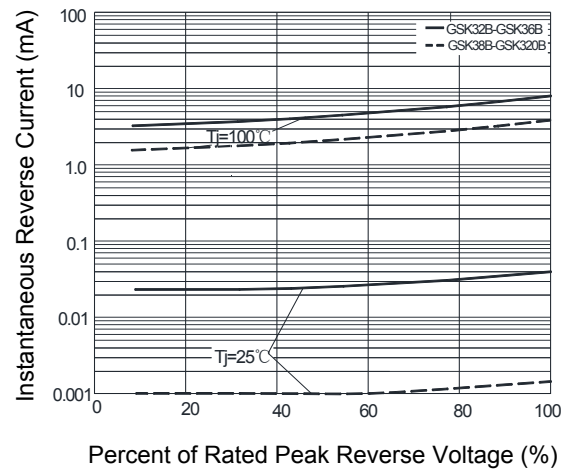
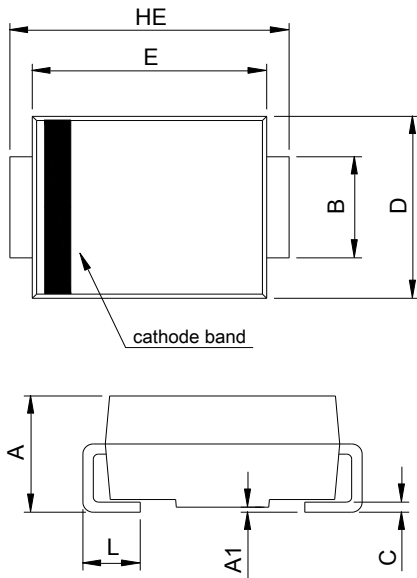


Figure 4. Typical Reverse Characteristics

GSK32B thru GSK320B

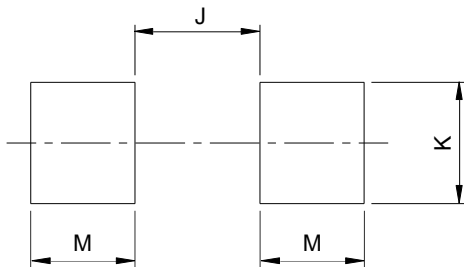
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Package Outline Dimensions SMB (DO-214AA)



SMB (DO-214AA)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.95	2.65	0.077	0.104
A1	0.00	0.20	0.000	0.008
B	1.95	2.20	0.077	0.087
C	0.15	0.31	0.006	0.012
D	3.30	3.95	0.130	0.156
E	4.06	4.60	0.160	0.181
HE	5.10	5.60	0.201	0.220
L	0.76	1.60	0.030	0.063

Recommended Pad Layout



Recommended Pad Layout (Reference ONLY)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	2.60	-	0.102
K	2.20	-	0.087	-
M	1.80	-	0.071	-

Order Information

Device	Package	Marking	Carrier	Quantity
GSK32B	SMB (DO-214AA)	S32B	Tape & Reel	3,000 pcs / Reel
GSK33B	SMB (DO-214AA)	S33B	Tape & Reel	3,000 pcs / Reel
GSK34B	SMB (DO-214AA)	S34B	Tape & Reel	3,000 pcs / Reel
GSK35B	SMB (DO-214AA)	S35B	Tape & Reel	3,000 pcs / Reel
GSK36B	SMB (DO-214AA)	S36B	Tape & Reel	3,000 pcs / Reel
GSK38B	SMB (DO-214AA)	S38B	Tape & Reel	3,000 pcs / Reel
GSK310B	SMB (DO-214AA)	S310B	Tape & Reel	3,000 pcs / Reel
GSK315B	SMB (DO-214AA)	S315B	Tape & Reel	3,000 pcs / Reel
GSK320B	SMB (DO-214AA)	S320B	Tape & Reel	3,000 pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com