

GSDSK32B Series

Surface Mount Schottky Barrier Rectifiers

Product Description

Reverse Voltage 20V To 100V Forward Current 3.0A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- High current capacity
- Built-in strain relief
- Low profile package
- Metal to silicon rectifier. majority carrier conduction
- High surge capacity
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection application
- High temperature soldering : 260°C/10 seconds at terminals
- Lead(Pb)-Free

Mechanical Data

- Case : Molded plastic, DO-214AA(SMB)
- Terminals : Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
- Polarity : Color band denotes cathode end
- Packaging : 12mm tape per EIA STD RS-481
- Weight : 0.003 ounce, 0.093 gram

Packages



SMB (DO-214AA)

Marking Information

P/N	Part Marking	Package
GSDSK32BF	SK32	SMB (DO-214AA)
GSDSK33BF	SK33	SMB (DO-214AA)
GSDSK34BF	SK34	SMB (DO-214AA)
GSDSK35BF	SK35	SMB (DO-214AA)
GSDSK36BF	SK36	SMB (DO-214AA)
GSDSK38BF	SK38	SMB (DO-214AA)
GSDSK39BF	SK39	SMB (DO-214AA)
GSDSK310BF	SK310	SMB (DO-214AA)

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60HZ, resistive or inductive load.

For capacitive load, derate current by 20%.

Symbol	Conditions	GSDSK32BF	GSDSK33BF	GSDSK34BF	GSDSK35BF	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	20	30	40	50	V
V_{RMS}	Maximum RMS Voltage	14	21	28	35	V
V_{DC}	Maximum DC Blocking Voltage	20	30	40	50	V
V_F	Maximum Instantaneous $I_F=3.0A$ (Note 1)	0.50	0.55		0.75	V
Symbol	Conditions	GSDSK36BF	GSDSK38BF	GSDSK39BF	GSDSK310BF	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	60	80	90	100	V
V_{RMS}	Maximum RMS Voltage	42	56	64	71	V
V_{DC}	Maximum DC Blocking Voltage	60	80	90	100	V
V_F	Maximum Instantaneous $I_F=3.0A$ (Note 1)	0.75	0.85			V
I_F	Maximum Average Forward Rectified Current	3.0				A
I_{FSM}	Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	100				A
I_R	Maximum DC Reverse Current At Rated DC Blocking Voltage	$T_A=25^\circ C$	0.5			mA
		$T_A=100^\circ C$	20			
$R_{\theta JA}$	Typical Thermal Resistance (Note 2)	55				$^\circ C/W$
$R_{\theta JL}$		17				$^\circ C/W$
T_J	Operating Junction Temperature Range	-55 to +125				$^\circ C$
T_{STG}	Storage Temperature Range	-55 to +150				$^\circ C$

Notes 1 : Pulse test: 300 μs pulse width, 1% duty cycle.

Notes 2 : Thermal resistance from junction to ambient mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas.

Typical Characteristics

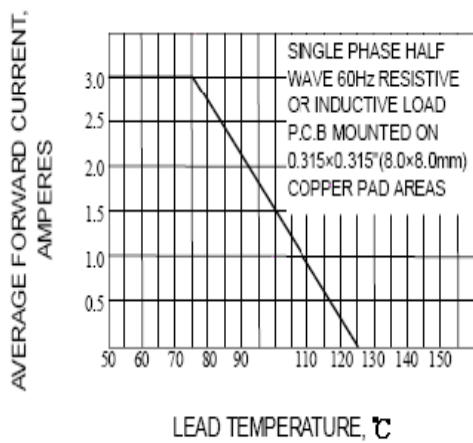


Fig. 1-FORWARD CURRENT DERATING CURVE

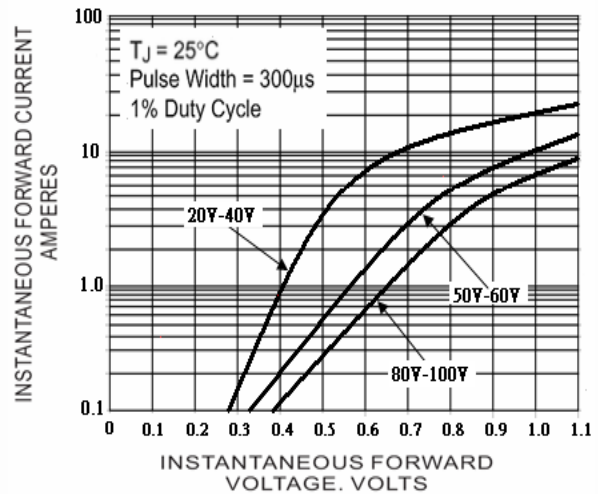


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

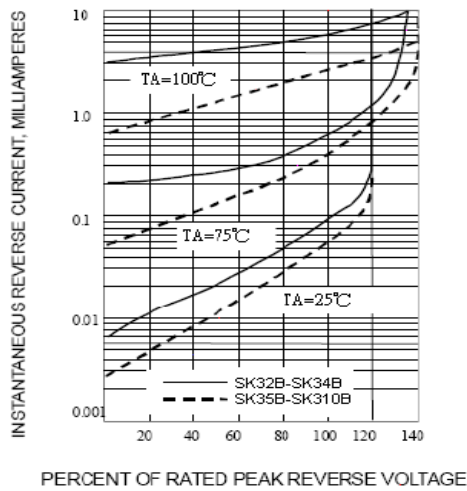


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

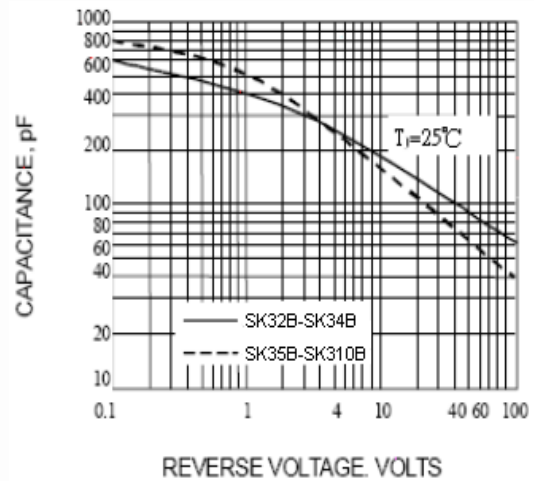


Fig. 4-TYPICAL JUNCTION CAPACITANCE

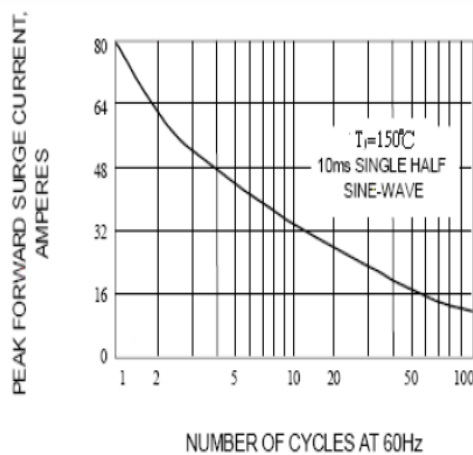
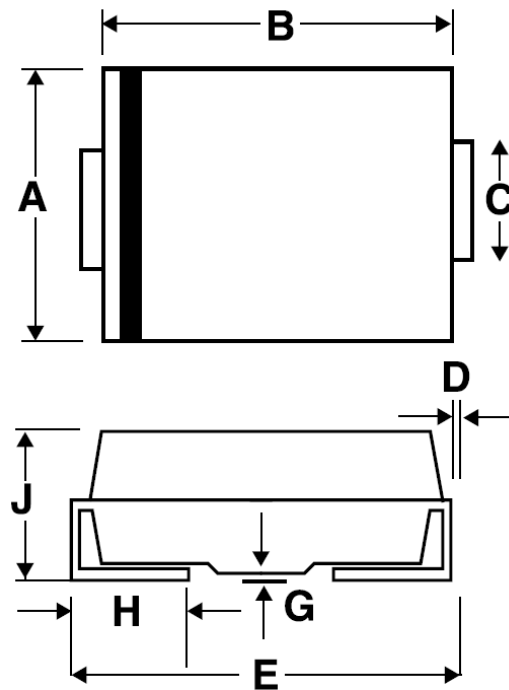


Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

Package Dimension

SMB (DO-214AA)







Dimensions

Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	3.30	3.94	0.129	0.155
B	4.06	4.57	0.159	0.179
C	1.96	2.11	0.077	0.083
D	0.15	0.31	0.005	0.012
E	5.21	5.59	0.205	0.220
G	0.10	0.20	0.003	0.007
H	0.76	1.52	0.029	0.059
J	2.13	2.44	0.083	0.096



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