

GSDB320-1 Series

Surface Mount Schottky Barrier Rectifiers

Product Description

Reverse Voltage 20V TO 200V Forward Current 3.0A

Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance
- Low profile surface mounted application in order to optimize board space
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guard ring for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

Mechanical Data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, SMC-1
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : Approximated 0.19 grams

Packages

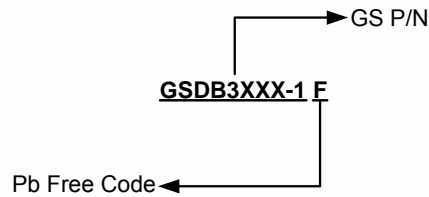


SMC-1

Marking Information

P/N	Package	Part Marking
GSDB320-1F	SMC-1	SK32
GSDB330-1F	SMC-1	SK33
GSDB340-1F	SMC-1	SK34
GSDB350-1F	SMC-1	SS35
GSDB360-1F	SMC-1	SS36
GSDB380-1F	SMC-1	SS38
GSDB3100-1F	SMC-1	S310
GSDB3150-1F	SMC-1	S315
GSDB3200-1F	SMC-1	S320

Ordering Information



Part Number	Package	Quantity
GSDB320-1F Series	SMC-1	3000 PCS

Electrical Characteristics

(T_A=25°C unless otherwise noted)

Symbol	Conditions	B320-1	B330-1	B340-1	B350-1	B360-1	Unit
V _{RRM}	Maximum Repetitive Peak Reverse Voltage	20	30	40	50	60	V
V _{RMS}	Maximum RMS Voltage	14	21	28	35	42	V
V _R	Continuous Reverse Voltage	20	30	40	50	60	V
V _F	Maximum Forward Voltage @ I _F =3.0A	0.5		0.7			V
Symbol	Conditions	B380-1	B3100-1	B3150-1	B3200-1	Unit	
V _{RRM}	Maximum Repetitive Peak Reverse Voltage	80	100	150	200	V	
V _{RMS}	Maximum RMS Voltage	56	70	105	140	V	
V _R	Continuous Reverse Voltage	80	100	150	200	V	
V _F	Maximum Forward Voltage @ I _F =3.0A	0.85		0.90	0.92	V	
I _R	Maximum DC Reverse Current At Rated DC Blocking Voltage	T _A =25°C	0.5			mA	
		T _A =100°C	20				
C _J	Typical Junction Capacitance	250			pF		
I _O	Forward Rectified Current	3.0			A		
I _{FSM}	Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	80			A		
R _{θJA}	Thermal Resistance Junction to Ambient	40			°C/W		
R _{θJC}	Thermal Resistance Junction to Case	20			°C/W		
T _J	Operating Temperature Range	-55 to +125			°C		
T _{STG}	Storage Temperature Range	-65 to +175			°C		

Typical Characteristics

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

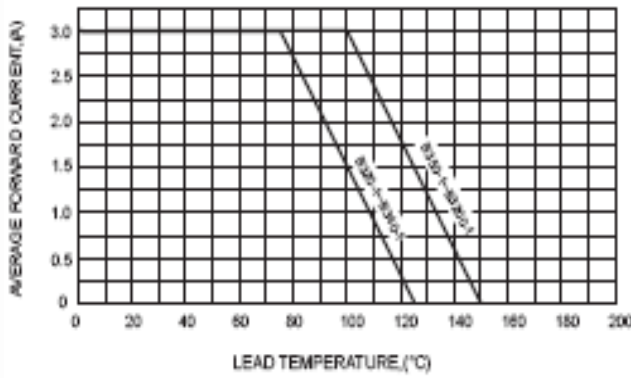


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

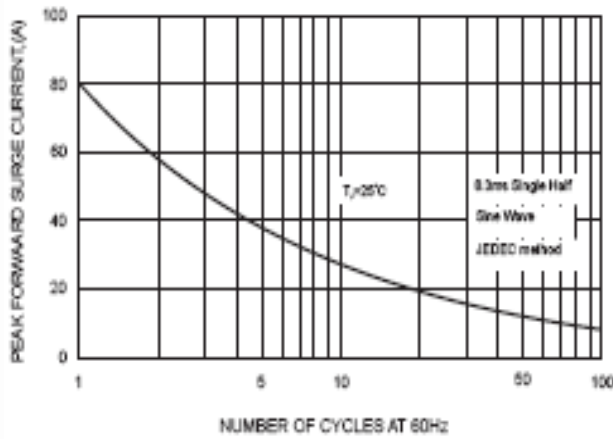


FIG.4-TYPICAL JUNCTION CAPACITANCE

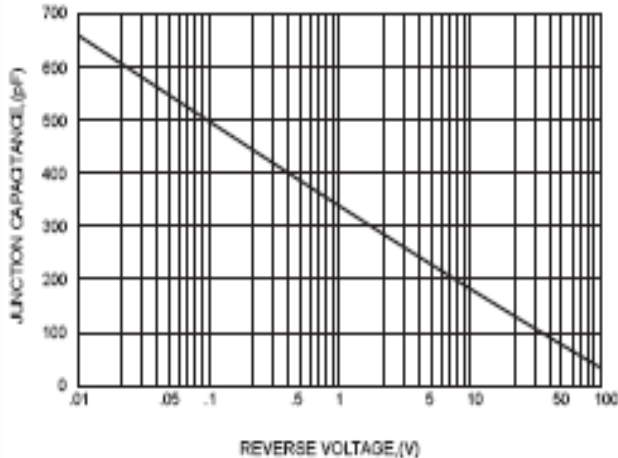


FIG.2-TYPICAL FORWARD CHARACTERISTICS

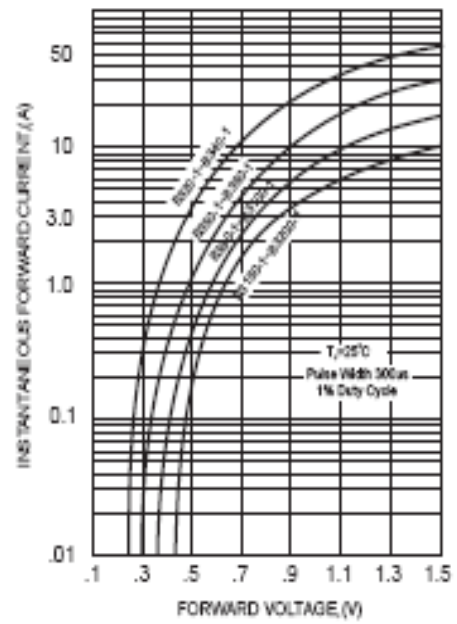
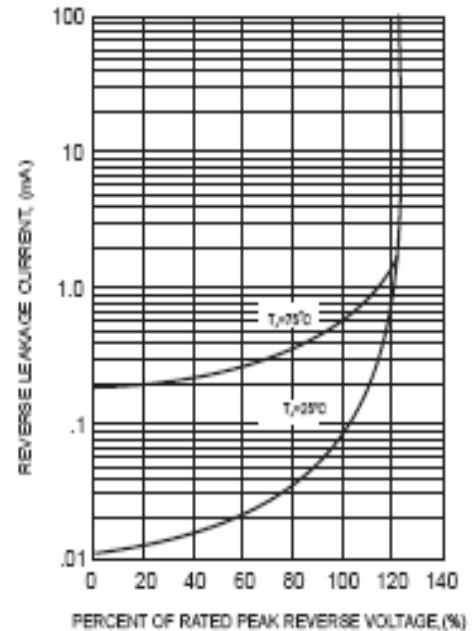
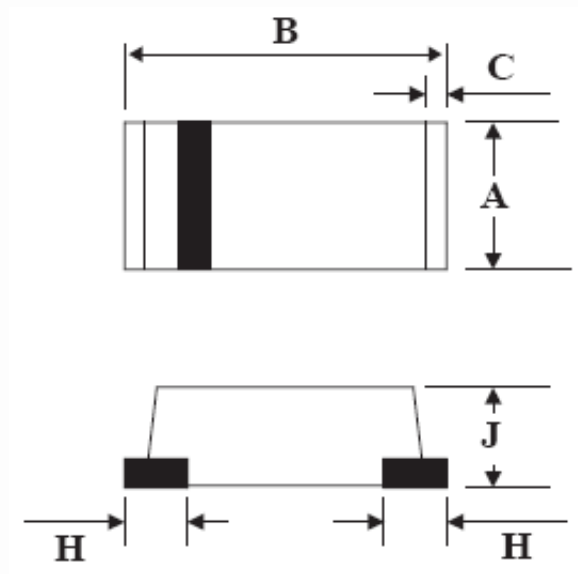


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Package Dimension

SMC-1











Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	4.20	4.80	0.165	0.189
B	6.30	6.90	0.248	0.272
C	0.30(TYP)	-	0.012(TYP)	-
H	1.20(TYP)	-	0.047(TYP)	-
J	1.90	2.50	0.075	0.098



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