

GS2ABT thru GS2MBT

Surface Mount General Purpose Rectifiers
 Reverse Voltage 50V to 1000V Forward Current 2A

Features

- Plastic package has underwriters laboratory flammability classification 94V-0
- Construction utilizes void-free molded plastic technique
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



SMBF

Mechanical Data

- Case: SMBF
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- Polarity: Cathode line denotes cathode end



Maximum Ratings and Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%.)

Parameter	Symbol	GS2A BT	GS2B BT	GS2D BT	GS2G BT	GS2J BT	GS2K BT	GS2M BT	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	2.0							A
Peak Forward Surge Current (8.3ms Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	5.0							uA
	$T_A=125^\circ\text{C}$	100							
Typical Thermal Resistance, Junction to Ambient ¹	$R_{\theta JA}$	60							°C/W
Typical Thermal Resistance, Junction to Case ¹	$R_{\theta JC}$	18							
Typical Junction Capacitance ²	C_J	30							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

Notes:

1. PCB mounted with 2.0"x2.0" (5x5cm) copper pad areas.
2. Measured at 1MHz and applied reverse voltage of 4V DC.

Typical Electrical Characteristic Curves

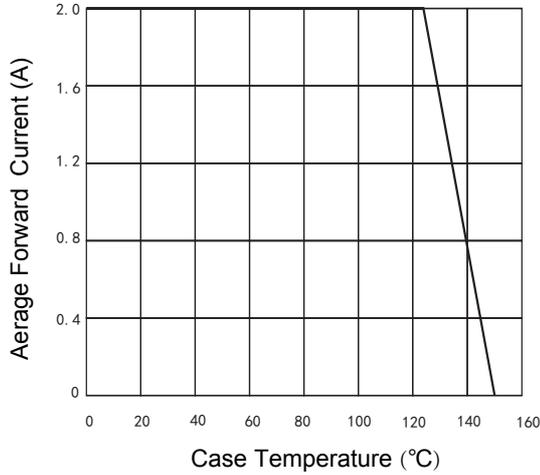


Figure 1. Forward Current Derating Curve

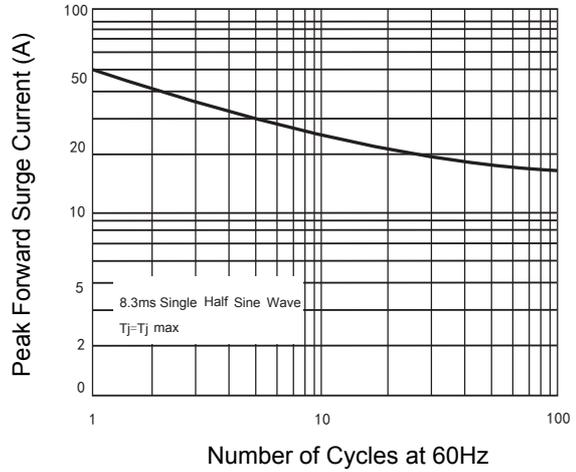


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

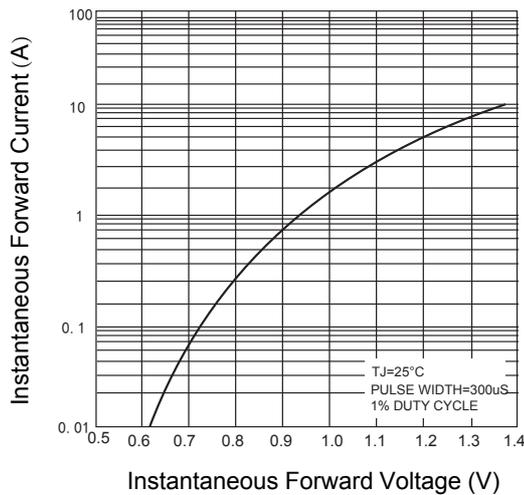


Figure 3. Typical Instantaneous Forward Characteristics

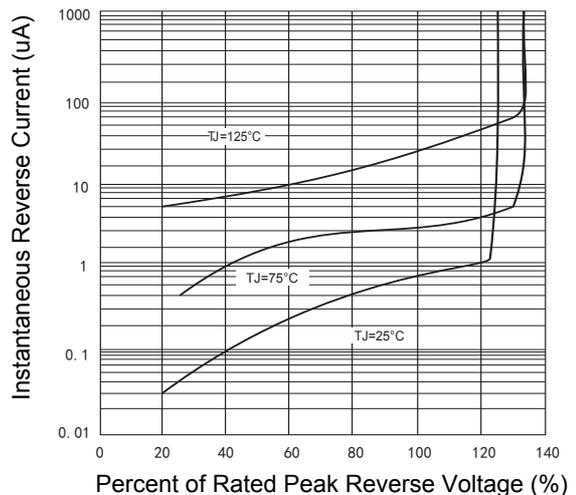


Figure 4. Typical Reverse Characteristics

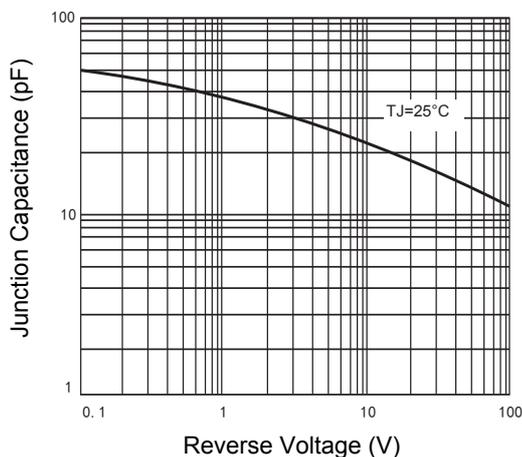
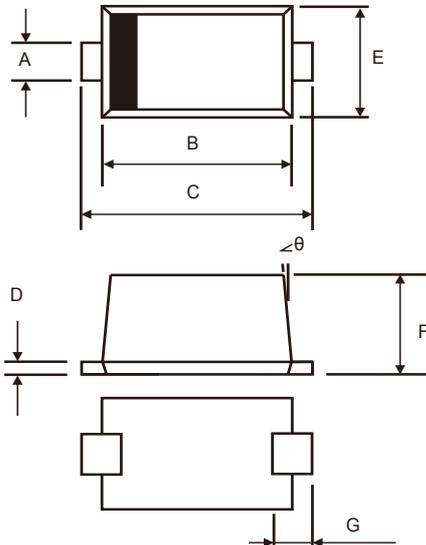


Figure 5. Typical Junction Capacitance

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Package Outline Dimensions (SMBF)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.80	2.20	0.071	0.087
B	4.20	4.70	0.166	0.185
C	5.10	5.50	0.200	0.217
D	0.10	0.30	0.006	0.012
E	3.40	3.80	0.134	0.150
F	0.90	1.50	0.035	0.059
G	0.60	1.20	0.028	0.047
θ	5° REF		5° REF	

Ordering information

Device	Package	Marking	Carrier	Quantity
GS2ABT	SMBF	S2ABT	Tape & Reel	3,000pcs / Reel
GS2BBT	SMBF	S2BBT	Tape & Reel	3,000pcs / Reel
GS2DBT	SMBF	S2DBT	Tape & Reel	3,000pcs / Reel
GS2GBT	SMBF	S2GBT	Tape & Reel	3,000pcs / Reel
GS2JBT	SMBF	S2JBT	Tape & Reel	3,000pcs / Reel
GS2KBT	SMBF	S2KBT	Tape & Reel	3,000pcs / Reel
GS2MBT	SMBF	S2MBT	Tape & Reel	3,000pcs / Reel

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