

GSS22BT thru GSS220BT

Surface Mount Schottky Barrier Rectifiers
 Reverse Voltage 20V to 200V Forward Current 2.0A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Built-in strain relief
- For surface mounted applications
- Low profile package
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



SMBF



Schematic Diagram

Mechanical Data

- Case: SMBF molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end

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

Parameter	Symbol	GSS 22BT	GSS 23BT	GSS 24BT	GSS 26BT	GSS 210BT	GSS 215BT	GSS 220BT	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	42	71	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	60	100	150	200	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	2.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50.0							A
Maximum Instantaneous Forward Voltage at 2.0A ¹	V_F	0.55		0.70	0.85	0.90	0.95	V	
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹	$T_A=25^{\circ}C$	100			20			μA	
	$T_A=100^{\circ}C$	5.0			-			mA	
	$T_A=125^{\circ}C$	-			3.0				
Typical Thermal Resistance ²	$R_{\theta JA}$	70							$^{\circ}C/W$
	$R_{\theta JL}$	25							$^{\circ}C/W$
Operating Junction Temperature Range	T_J	-55 to +150							$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150							$^{\circ}C$

Notes:

1. Pulse test: 300 μs pulse width, 1% duty cycle
2. P.C.B. mounted with 0.2 X 0.2" (5.0 X 5.0mm) copper pad areas

Ratings and Characteristics Curves

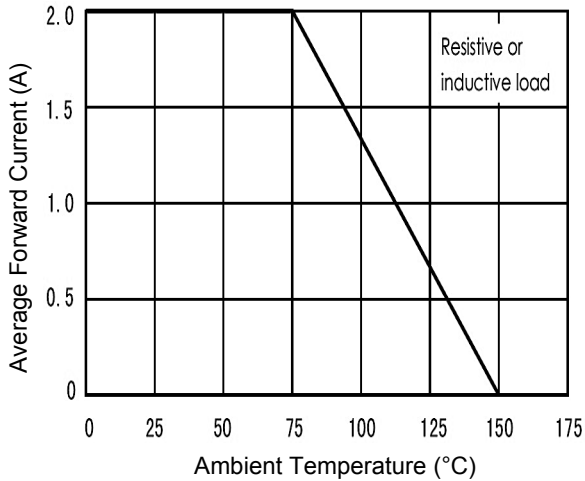


Figure 1. Forward Current Derating Curve

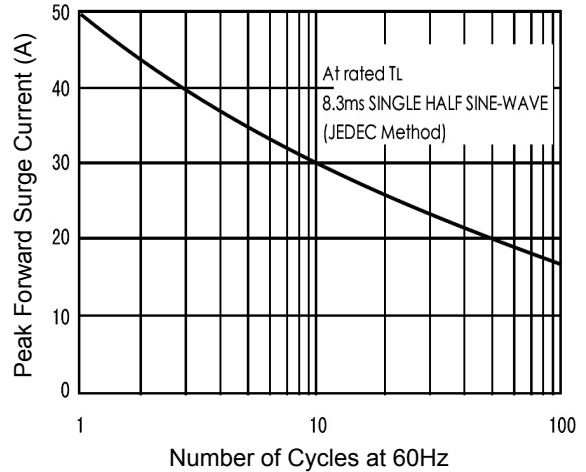


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

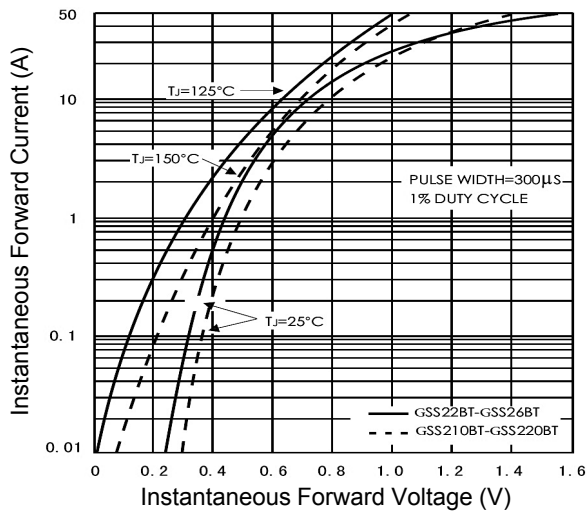


Figure 3. Typical Instantaneous Forward Characteristics

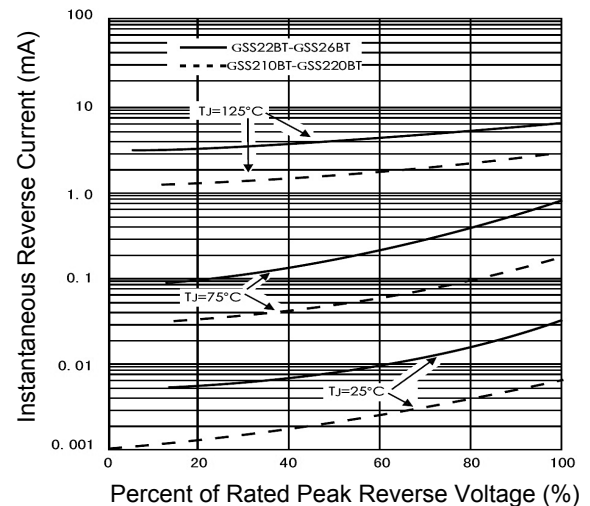


Figure 4. Typical Reverse Characteristics

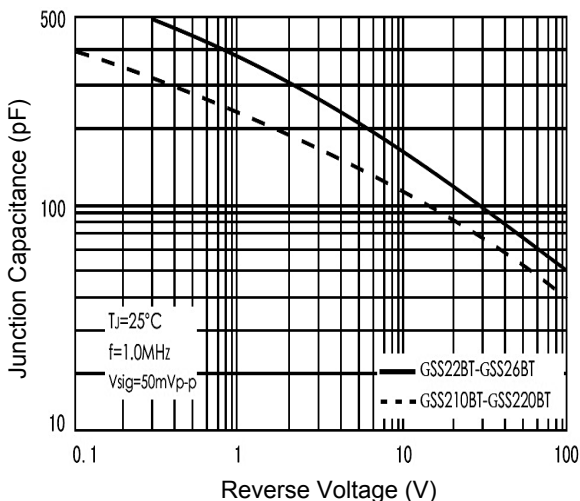
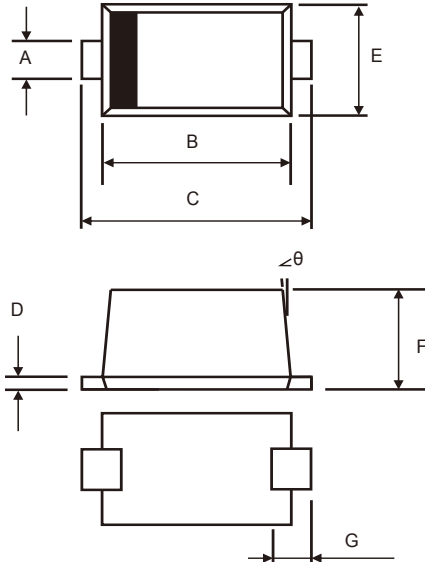


Figure 5. Typical Junction Capacitance

Package Outline Dimensions (SMBF)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.80	2.20	0.071	0.086
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	0°	5°	0°	5°

Order Information

Device	Package	Marking	Carrier	Quantity
GSS22BT	SMBF	SS22BT	Tape & Reel	3,000 Pcs / Reel
GSS23BT	SMBF	SS23BT	Tape & Reel	3,000 Pcs / Reel
GSS24BT	SMBF	SS24BT	Tape & Reel	3,000 Pcs / Reel
GSS26BT	SMBF	SS26BT	Tape & Reel	3,000 Pcs / Reel
GSS210BT	SMBF	SS210BT	Tape & Reel	3,000 Pcs / Reel
GSS215BT	SMBF	SS215BT	Tape & Reel	3,000 Pcs / Reel
GSS220BT	SMBF	SS220BT	Tape & Reel	3,000 Pcs / Reel