GSDSS5xBF Series

5A Schottky Barrier Diodes

Product Description

It is designed to meet the general requirements of commercial applications.

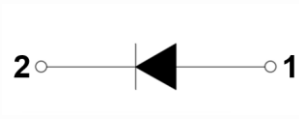
Features

- Low Reverse Leakage
- High Forward Surge Current Capability

Mechanical Data

- SMB (DO-214AA) Package
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Color Band denotes Cathode End
- RoHS Compliant and Halogen Free

Packages & Pin Assignments

SMB (DO-214AA)		Equivalent Circuit	
			
Pin	**Description**	**Pin**	**Description**
1	Anode	2	Cathode

Ordering and Marking Information

Ordering Information			
Part Number	**V_{RRM}**	**Marking Code**	**Quantity/Reel**
GSDSS54BF	40 V	SS54	3,000 PCS
GSDSS56BF	60 V	SS56	
GSDSS510BF	100 V	SS510	
- B for SMB Package			

Maximum Ratings and Electrical Characteristics (T_A=25ºC unless otherwise specified)

Symbol	Conditions		SS54	SS56	SS510	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage		40	60	100	V
V_{RMS}	Maximum RMS Voltage		28	42	70	V
V_{DC}	Maximum DC Blocking Voltage		40	60	100	V
$I_{F(AV)}$	Maximum Average Forward Rectified Current at T_L (See Fig.1)		5			A
I_{FSM}	Peak Forward Surge Current (8.3ms Single Half Sinewave)		150			A
V_F	Maximum Forward Voltage at 5A		0.55	0.7	0.85	V
I_R	Maximum Reverse Leakage Current at rated V_R	T_A = 25°C	0.5			mA
		T_A = 100°C	20		10	
C_J	Typical Junction Capacitance (1)		200			pF
$R_{\theta JA}$	Typical Thermal Resistance (2)		50			°C/W
T_J	Operating Junction Temperature Range		-65 to +150			°C
T_{STG}	Storage Temperature Range		-65 to +150			°C
T_L	Lead Soldering Temperature (10 seconds)		250			°C

NOTE:
1. Measured at 1MHz and applied reverse voltage of 4.0 V_{DC}.
2. Mounted with 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Areas

Typical Characteristics (Ratings at T_A = 25°C unless Otherwise Specified.)

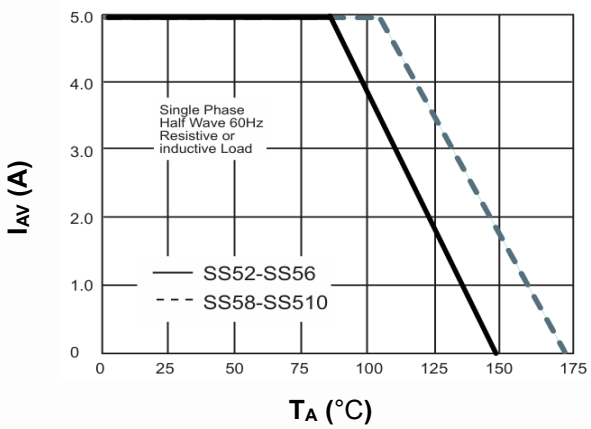


FIG 1. FORWARD CURRENT DERATING CURVE

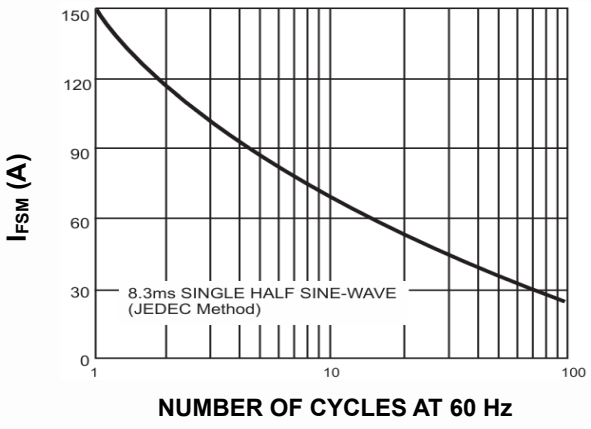


FIG 2. MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

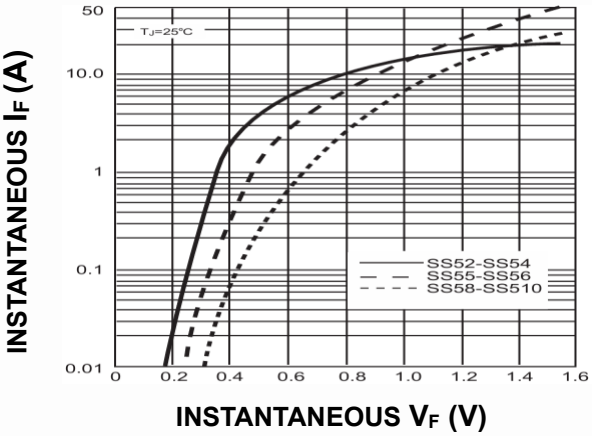


FIG 3. TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

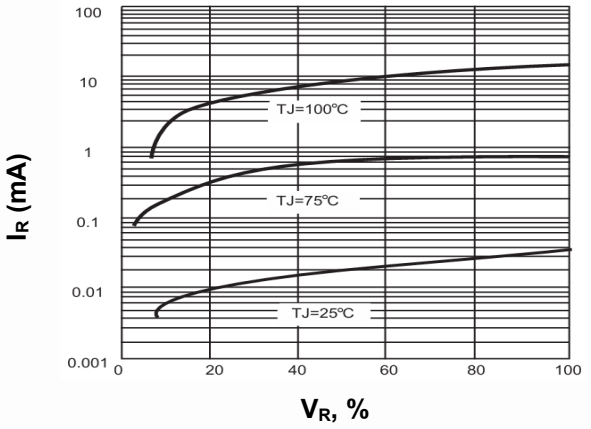


FIG 4. TYPICAL REVERSE CHARACTERISTICS

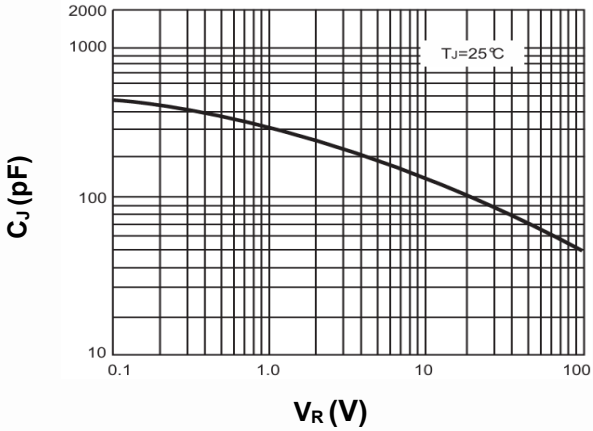


FIG 5. TYPICAL JUNCTION CAPACITANCE

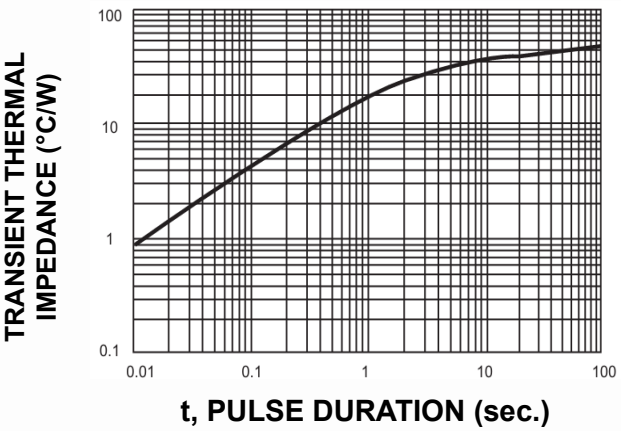
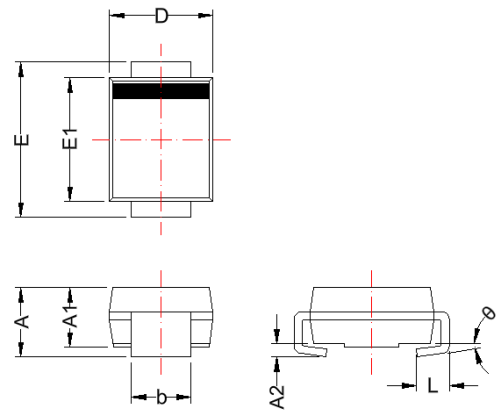


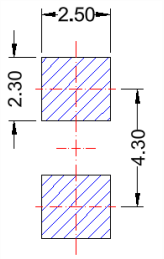
FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

SMB (DO-214AA)

Package Dimension



Recommended Land Pattern



Unit: mm

Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.95	2.65	0.077	0.104
A1	1.90	---	0.075	---
A2	0.00	0.40	0.000	0.016
b	1.80	2.20	0.071	0.087
D	3.20	4.00	0.126	0.157
E	5.00	6.00	0.197	0.236
E1	4.00	4.90	0.157	0.193
L	0.75	1.60	0.030	0.063
θ	0°	8°	0°	8°

NOTE:

Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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