

GSDSS5xCF 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

- SMC (DO-214AB) Package
- The Plastic Package Carries Underwriters Laboratory Flammability Classification 94V-0
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Color Band denotes Cathode End
- RoHS Compliant and Halogen Free

Packages & Pin Assignments

SMC (DO-214AB)		Equivalent Circuit	
			
Pin	Description	Pin	Description
1	Anode	2	Cathode

Ordering and Marking Information

Ordering Information			
Part Number	V _{RRM}	Marking Code	Quantity/Reel
GSDSS54CF	40 V	SS54	3,000 PCS
GSDSS56CF	60 V	SS56	
GSDSS510CF	100 V	SS510	
- C for SMC Package			

Electrical Characteristics (T_A=25°C 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 _{θJA}	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

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 25°C Ambient Temperature Unless Otherwise Specified.)

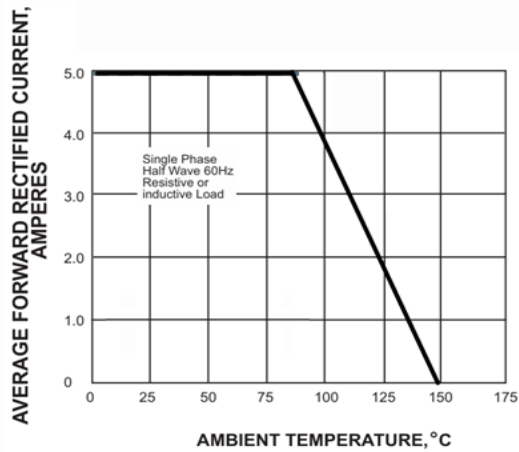


FIG 1. FORWARD CURRENT DERATING CURVE

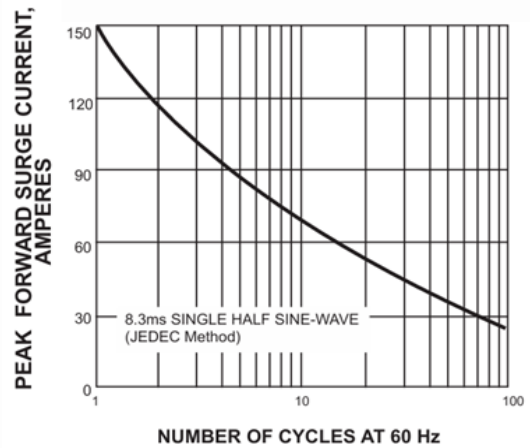


FIG 2. MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

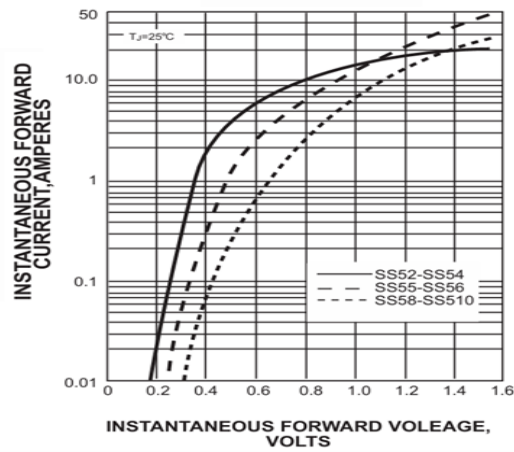


FIG 3. TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

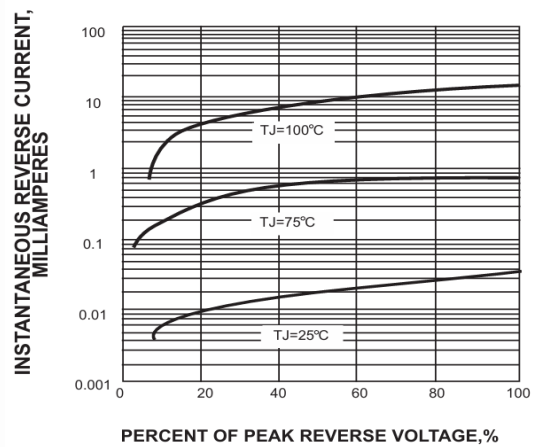


FIG 4. TYPICAL REVERSE CHARACTERISTICS

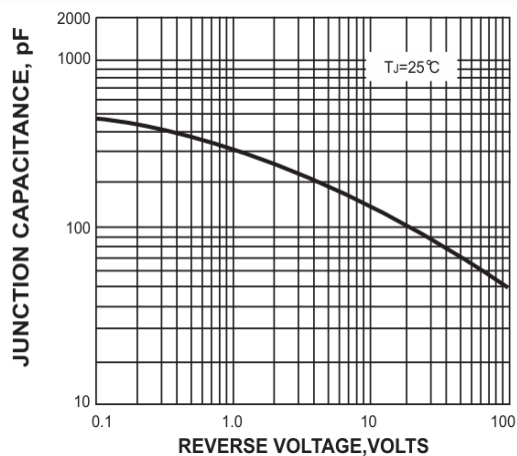
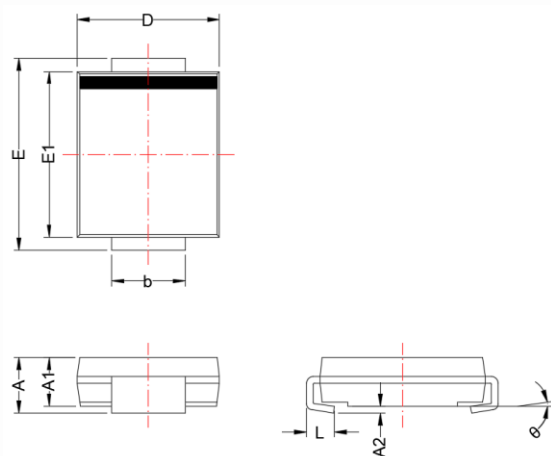


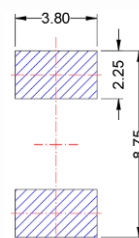
FIG 5. TYPICAL JUNCTION CAPACITANCE

SMC (DO-214AB)

Package Dimension



Recommended Land Pattern



Unit: mm

Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.95	2.80	0.077	0.110
A1	1.90	---	0.075	---
A2	0.00	0.30	0.000	0.012
b	2.90	3.20	0.114	0.126
D	5.55	6.25	0.219	0.246
E	7.75	8.15	0.305	0.321
E1	6.60	7.15	0.260	0.281
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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