

GSDSS5□□A1F Series

Schottky Barrier Diode

Product Description

Reverse Voltage 40V to 200V.
Forward Current 5.0A



Features

- Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- RoHS Compliant and Halogen Free

Mechanical Data

- Case : Molded Plastic, SMAF Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band denotes Cathode End

Package and Pin Assignment

SMAF		Equivalent Circuit
		
Pin	Description	
1	Anode	
2	Cathode	

Ordering and Marking Information

Ordering Information			
Part Number	Package	Marking Code	Quantity/Reel
GSDSS54A1F	SMAF	SS54	3000 PCS
GSDSS56A1F	SMAF	SS56	3000 PCS
GSDSS510A1F	SMAF	SS510	3000 PCS
GSDSS515A1F	SMAF	SS515	3000 PCS
GSDSS520A1F	SMAF	SS520	3000 PCS

GSDSS5□□A1F			
- Product Code: GSDSS5	- Voltage Code: □□ is 4, 6, 10, 15 and 20. For examples 4 stands for 40V and 20 stands for 200V	- Package Code: A1 for SMAF Package	
- Green Level: F for RoHS Compliant and Halogen Free			

Marking Information

SS5 □ □

- **Product Code:**
SS5

- **Voltage Code:**
□ □ is 4, 6, 10, 15 and 20.
For examples 4 stands for 40V
and 20 stands for 200V

Electrical Characteristics

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

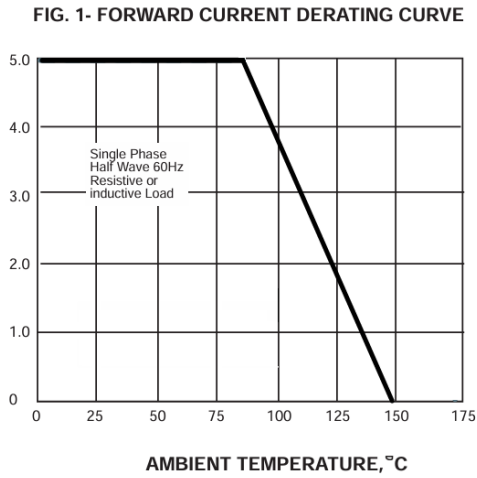
Symbol	Description	54A1F	56A1F	510A1F	515A1F	520A1F	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	40	60	100	150	200	V
V_{RMS}	Maximum RMS Voltage	28	42	70	105	140	V
V_{DC}	Maximum DC Blocking Voltage	40	60	100	150	200	V
$I_{(AV)}$	Maximum Average Forward Rectified Current	5.0					A
I_{FSM}	Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave Superimposed on rated Load (JEDEC Method)	120					A
V_F	Maximum Forward Voltage at 5.0A	0.55	0.70	0.85		0.95	V
I_R	Maximum Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$	0.5			0.2		mA
	$T_A=100^\circ\text{C}$	20	10	2.0			
C_J	Typical Junction Capacitance ⁽¹⁾	200					pF
$R_{\theta JA}$	Typical Thermal Resistance ¹	50					°C/W
T_J	Junction Temperature Range	-65 to 150					°C
T_{STG}	Storage Temperature Range	-65 to 150					°C

NOTES:

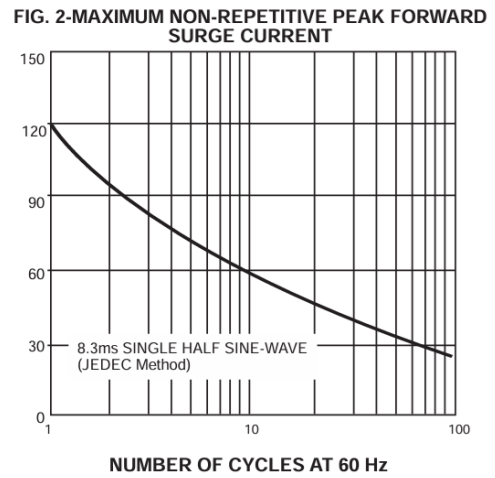
1. Measured at 1MHz and applied reverse voltage of 4.0 V_{DC} .
2. Mounted with 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Areas

Typical Characteristics (Ratings at 25°C Ambient Temperature Unless Otherwise Specified.)

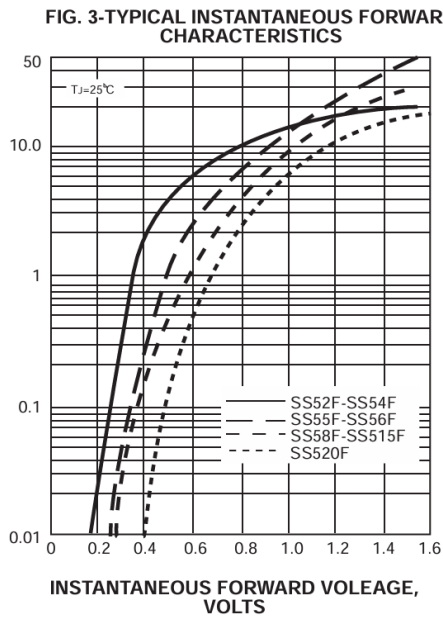
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES



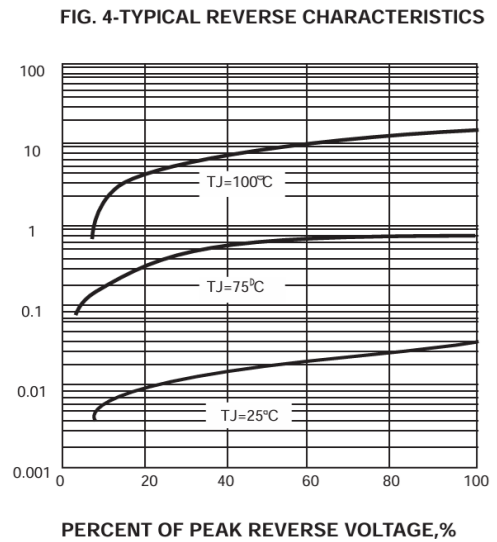
PEAK FORWARD SURGE CURRENT, AMPERES



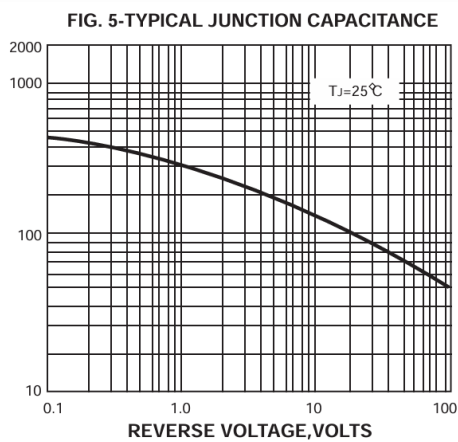
INSTANTANEOUS FORWARD CURRENT, AMPERES



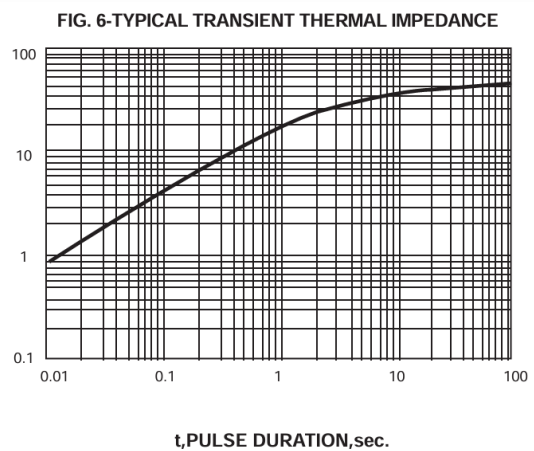
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES



JUNCTION CAPACITANCE, pF



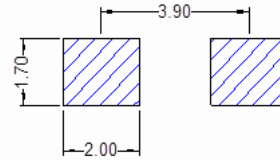
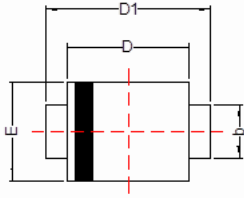
TRANSIENT THERMAL IMPEDANCE °C/W



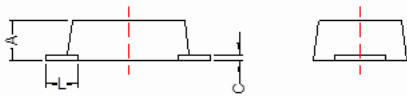
SMAF

Package Dimension

Recommended Land Pattern



(Unit: mm)



Dimensions				
SYMBOL	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	0.90	1.30	0.035	0.051
b	1.20	1.60	0.047	0.063
D	3.25	3.75	0.128	0.147
D1	4.30	4.90	0.169	0.193
E	2.30	2.70	0.091	0.106
c	0.05	0.3	0.002	0.012
L	1.20 MAX		0.047 MAX	





NOTE:



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

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