

Schottky Barrier Rectifier

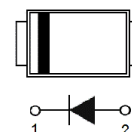
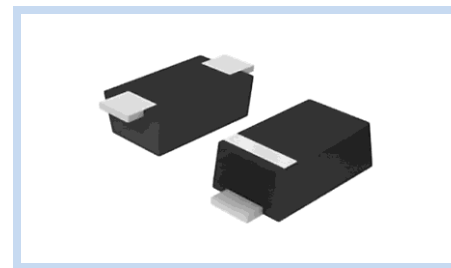
5A 40~100V SMAF

SS5-AF Series

MERITEK

FEATURES

- Low Power Loss, High Efficiency
- High Forward Surge Current Capacity
- Low Forward Voltage Drop
- Ultra High-Speed Switching
- Application: Low-Voltage, High-Frequency Inverters, Free Wheeling, and Polarity Protection



ELECTRICAL CHARACTERISTICS

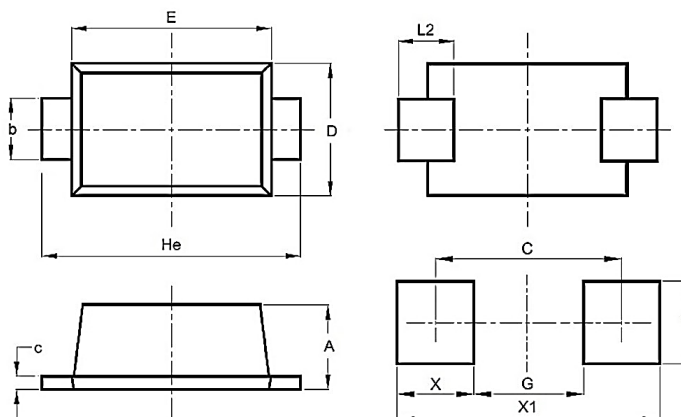
Parameter		Symbol	SS54AF	SS56AF	SS510AF	Unit
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	40	60	100	V
Maximum RMS Voltage		V _{RMS}	28	42	70	V
Maximum DC Blocking Voltage		V _{DC}	40	60	100	V
Maximum Forward Voltage at 5.0A		V _F	0.55	0.70	0.85	V
Maximum Average Forward Rectified Current (See Fig. Typical Forward Current Derating Curve)		I _(AV)	5.0			A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	100.0			A
Maximum Reverse Current at Rated DC Blocking Voltage	T _J =25°C	I _R	0.5			mA
	T _J =100°C		50.0			
Typical Thermal Resistance		R _{θJA}	70.0			°C/W
Operating Junction Temperature Range		T _J	-55 to +125	-55 to +150		°C
Storage Temperature Range		T _{STG}	-55 to +150			°C

Note:

1. Ratings at 25°C ambient temperature unless otherwise specified.
2. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%
3. Pulse test: 300μs pulse width, 1% duty cycle.
4. Thermal resistance from junction to ambient mounted on PCB with 5x5mm copper pad areas.

DIMENSIONS

Item	Min (mm)	Max (mm)
A	0.90	1.10
b	1.20	1.60
c	0.10	0.20
D	2.40	2.80
E	3.50	3.90
He	4.60	5.00
L2	0.55	-
C	4.30	
G	2.70	
X	1.60	
X1	5.90	
Y	2.15	



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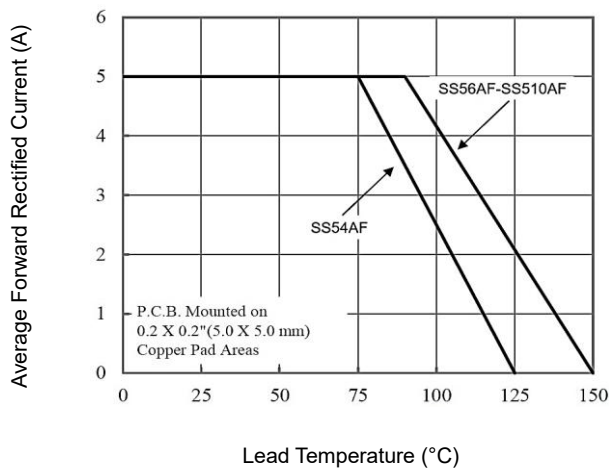
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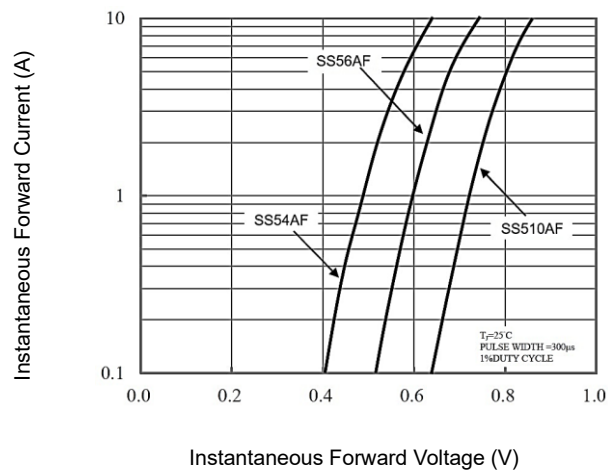
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CHARACTERISTIC CURVES

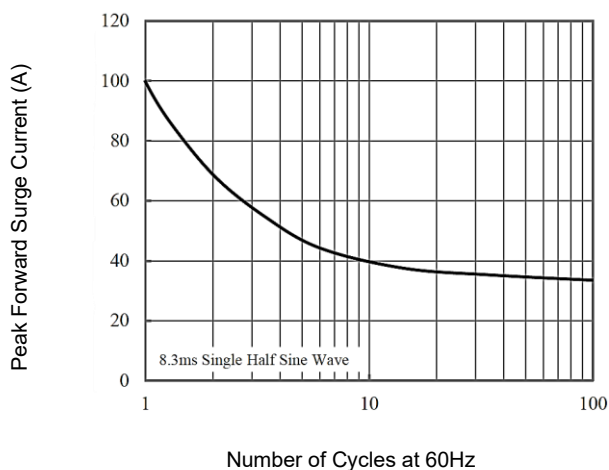
Typical Forward Current Derating Curve



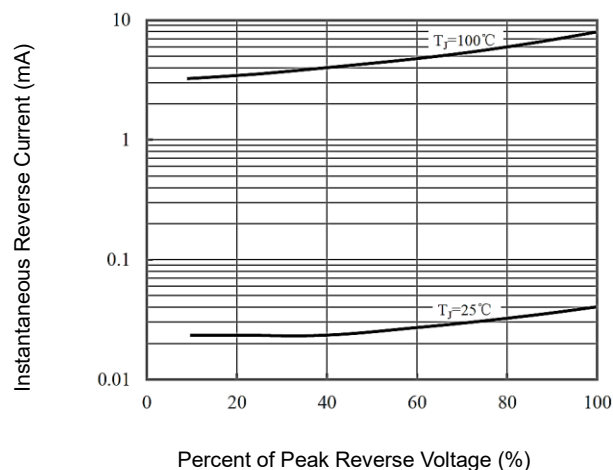
Typical Instantaneous Forward Characteristics



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristics



*Specifications subject to change without notice.