

Schottky Barrier Rectifier

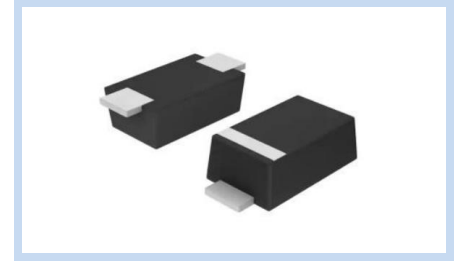
5A 40~200V DO-214AC SMAF

SS5-AF Series

MERITEK

FEATURES

- Low Power Loss, High Efficiency
- Low Profile Package
- High Forward Surge Current Capacity
- Low Forward Voltage Drop



MECHANICAL DATA

- Case: SMAF, Molded Plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color Band denotes Cathode end



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

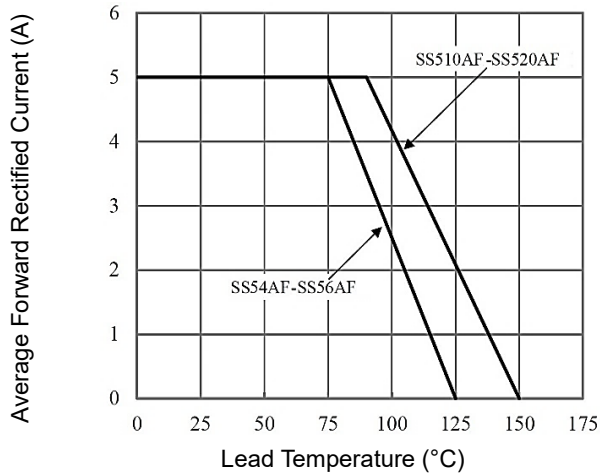
Parameter		Symbol	SS54AF	SS56AF	SS510AF	SS515AF	SS520AF	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	40	60	100	150	200	V
Maximum RMS Voltage		V_{RMS}	28	42	70	105	140	V
Maximum DC Blocking Voltage		V_{DC}	40	60	100	150	200	V
Maximum Average Forward Rectified Current at T_L		$I_{(AV)}$	5.0					A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	100.0					A
Maximum Forward Voltage at 5.0A		V_F	0.55	0.70	0.85	0.95		V
Maximum Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}C$	I_R	0.5		0.2		mA	
	$T_A=100^{\circ}C$		20.0		10.0			
Typical Thermal Resistance	Junction to Ambient	$R_{\theta JA}$	65.0				$^{\circ}C/W$	
	Junction to Lead	$R_{\theta JL}$	20.0					
Operating Junction Temperature Range		T_J	-65 to +125		-65 to +150		$^{\circ}C$	
Storage Temperature Range		T_{STG}	-65 to +150				$^{\circ}C$	

Note:

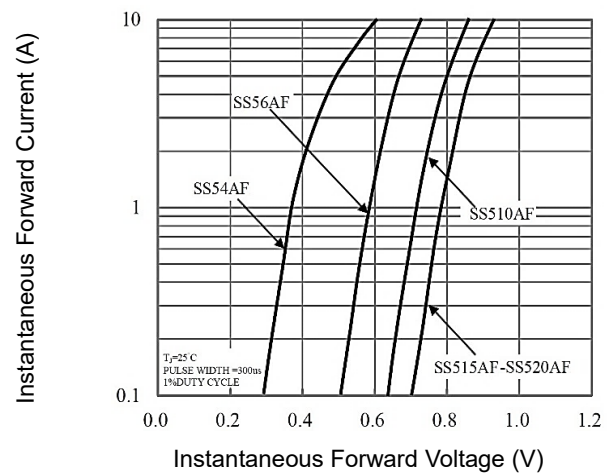
1. Ratings at 25°C ambient temperature unless otherwise specified.
2. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.
3. Thermal resistance from junction to lead mounted on P.C.B. with 0.2 x 0.2 inch² (5.0 x 5.0 mm²) copper pad areas

CHARACTERISTIC CURVES

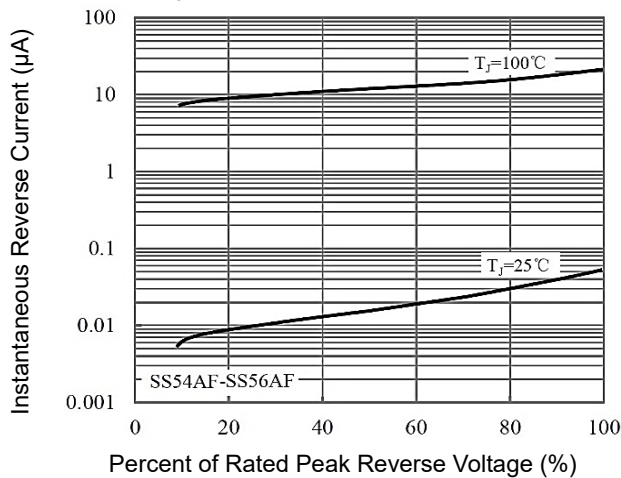
Typical Forward Current Derating Curve



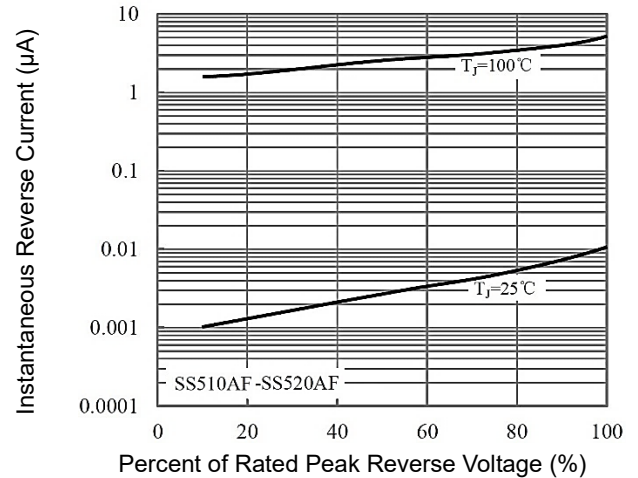
Typical Instantaneous Forward Characteristics



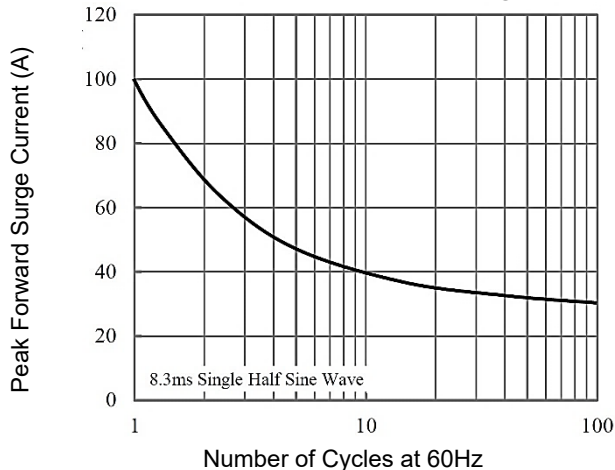
Typical Reverse Characteristics



Typical Reverse Characteristics



Maximum Non-Repetitive Forward Surge Current



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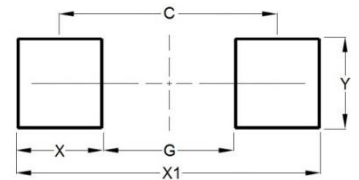
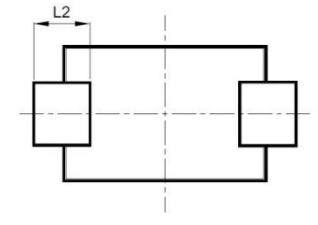
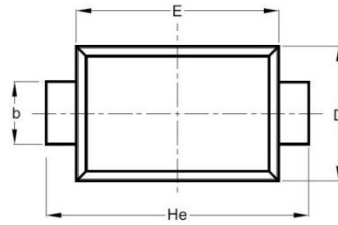
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.90	1.30
b	1.20	1.60
c	0.05	0.30
D	2.30	2.70
E	3.30	3.70
He	4.30	4.90
L2	0.50	-
C	4.30	
G	2.70	
X	1.60	
X1	5.90	
Y	2.15	



*Specifications subject to change without notice