



SS54AFH THRU SS520AFH

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE: 40 to 200 VOLTS

FORWARD CURRENT: 5.0 AMPERE

FEATURES

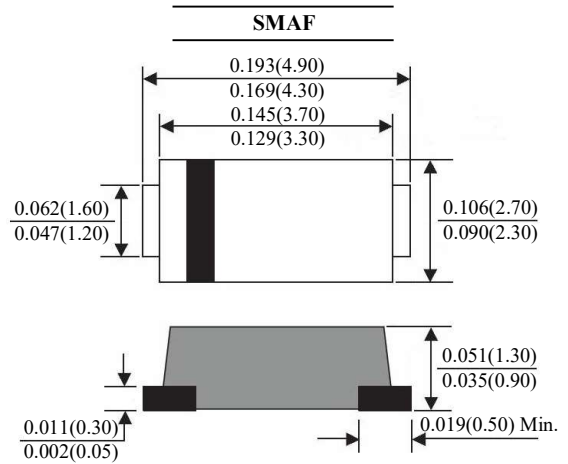
- Low forward voltage drop
- Low power loss, high efficiency
- High forward surge current capability
- Suffix "H" indicates Halogen-free parts, ex. SS54AFLH

MECHANICAL DATA

Case : Molded plastic, SMAF

Terminals : Solder plated, solderable per MIL-STD-750,
method 2026 guaranteed

Polarity : Color band denotes cathode end



Maximum Ratings and 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%.

Parameter	Symbols	SS54AFH	SS56AFH	SS510AFH	SS515AFH	SS520AFH	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	60	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	28	42	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	40	60	100	150	100	Volts
Maximum Average Forward Rectified Current T_L (see FIG. 1)	$I_{(AV)}$	5.0					Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100					Amp
Maximum Forward Voltage at 5.0A	V_F	0.55	0.70	0.85	0.95		Volts
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R	0.5		0.2			mAmp
		20.0		10.0			
Typical Thermal Resistance from Junction to Ambient (Note 1)	$R_{\theta JA}$	65					°C/W
Typical Thermal Resistance from Junction to Lead (Note 1)	$R_{\theta JL}$	20					°C/W
Operating Junction Temperature Range	T_J	-65 to +125		-65 to +150			°C
Storage Temperature Range	T_{stg}	-65 to +150					°C

NOTES:

1- Thermal resistance from junction to ambient mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas



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RATINGS AND CHARACTERISTIC CURVES

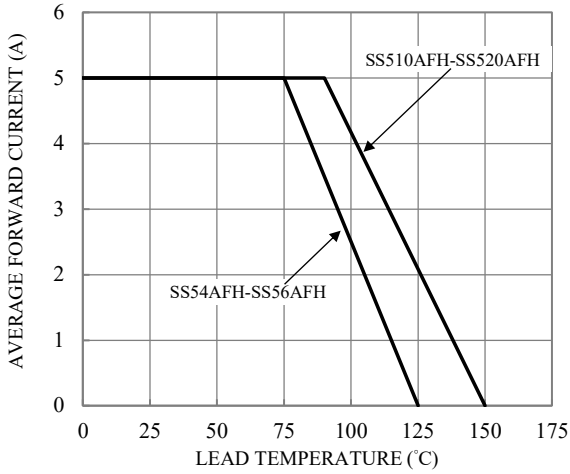


Fig.1-FORWARD CURRENT DERATING CURVE

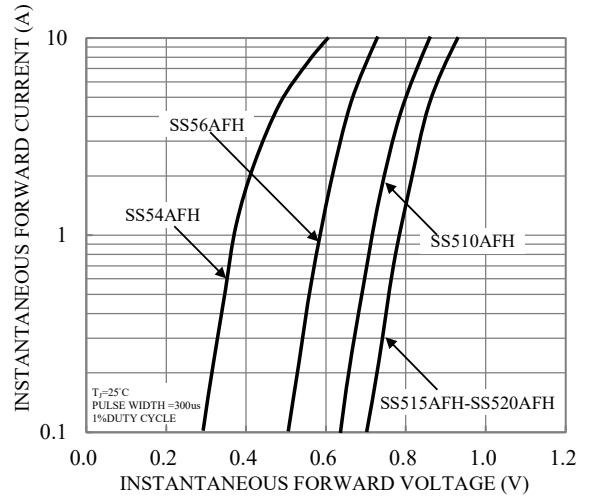


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

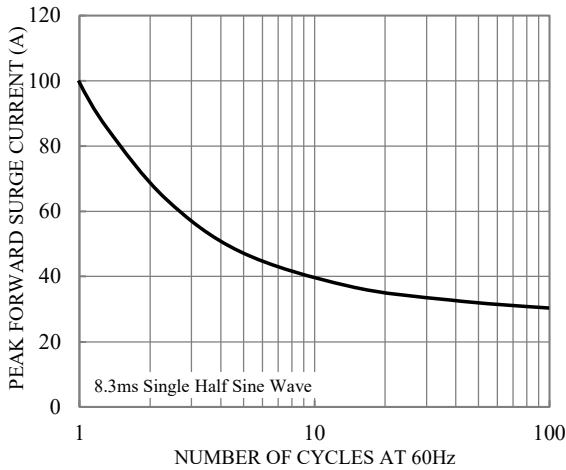


Fig.3-MAXIMUM NON-REPETITIVE SURGE CURRENT

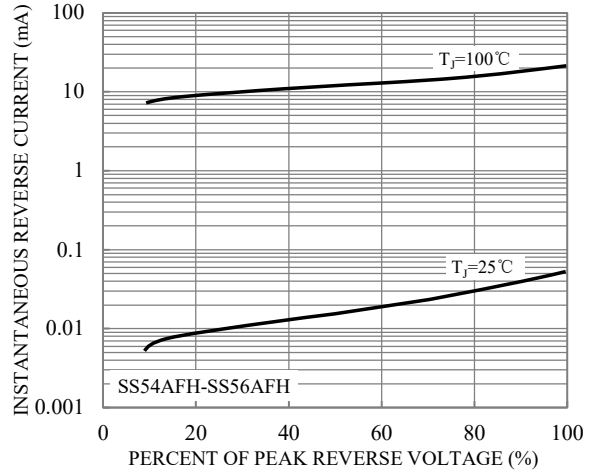


Fig.4-TYPICAL REVERSE CHARACTERISTICS

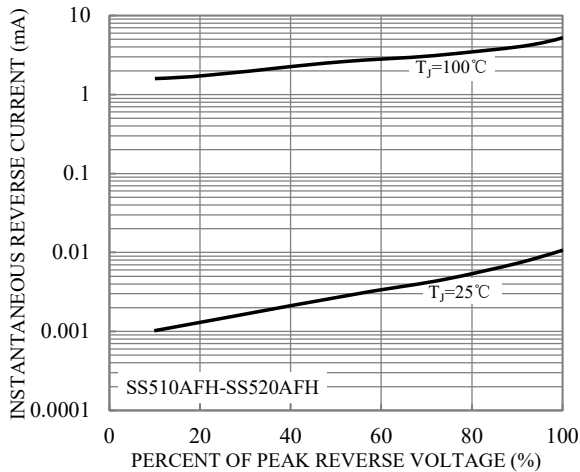


Fig.5-TYPICAL REVERSE CHARACTERISTICS