



Features

- Plastic package Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier.majority carrier conduction
- Low power loss,high efficiency
- High surge capacity
- High current capacity,low VF
- For use in low voltage high frequency inverters,free wheeling and polarity protection applications.
- High temperature soldring guaranteed:260°C/10 seconds at terminals

Mechanical Data

Terminal: Plated leads, solderable per MIL-

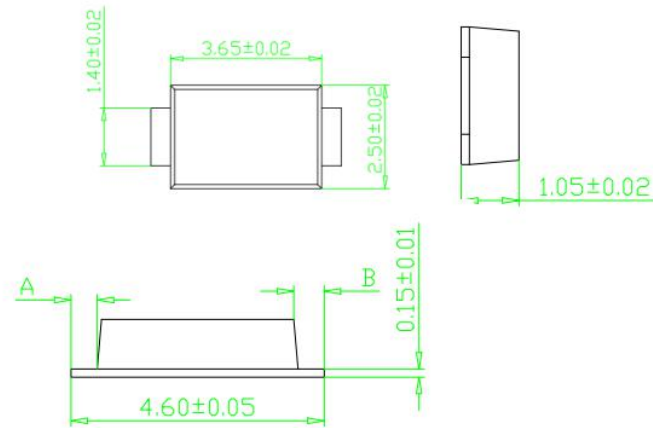
- STD-750,Method 2026
- Case: molded plastic SMAF
- Polarity: Color band denotes postives end(cathode)
- Standard packaging:12mm tape(EIA-481)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive

SMAF



Dimiensions in inches and (millimeters)

Parameter	Symbols	SS52F	SS54F	SS56F	SS58F	SS510F	SS512F	SS515F	SS520F	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	175				150				A
Max Instantaneous Forward Voltage at 5 A	V_F	0.45	0.55	0.70		0.85				V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a = 100^{\circ}C$	I_R					1.0 50				mA
Typical Junction Capacitance ⁽¹⁾	C_j	700		500						pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	50								°C/W
Operating Junction Temperature Range	T_J	-55 ~ +150								°C
Storage Temperature Range	T_{stg}	-55 ~ +150								°C

load. For capacitive load, derate current by 20%.

Note: 1. Pulse Test with PW=300μsec,2% Duty Cycle.

2. Mounted on P.C.Board with 5.0mm2(.013mm thick)copper pad areas.



Fig.1 Forward Current Derating Curve

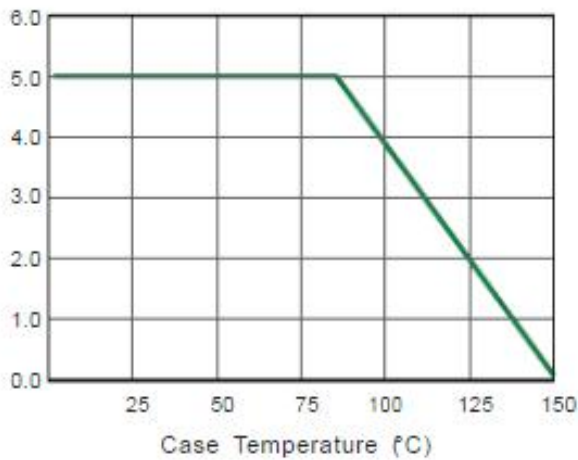


Fig.2 Typical Reverse Characteristics

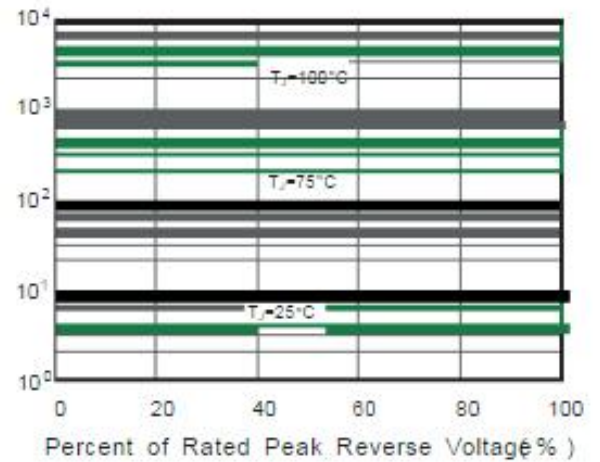


Fig.3 Typical Forward Characteristic

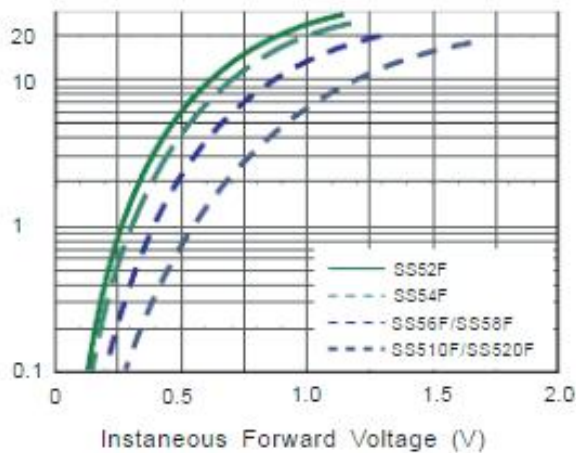


Fig.4 Typical Junction Capacitance

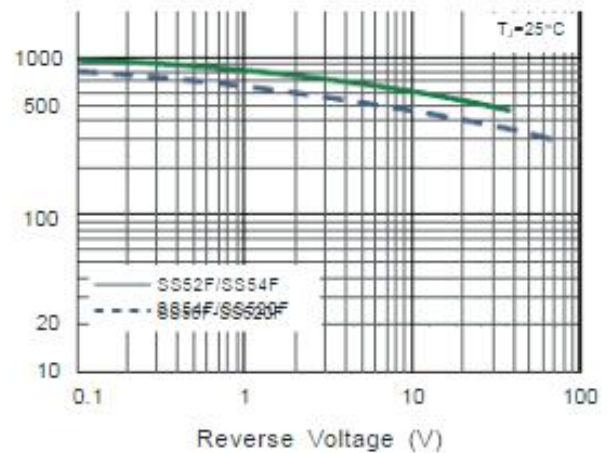


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

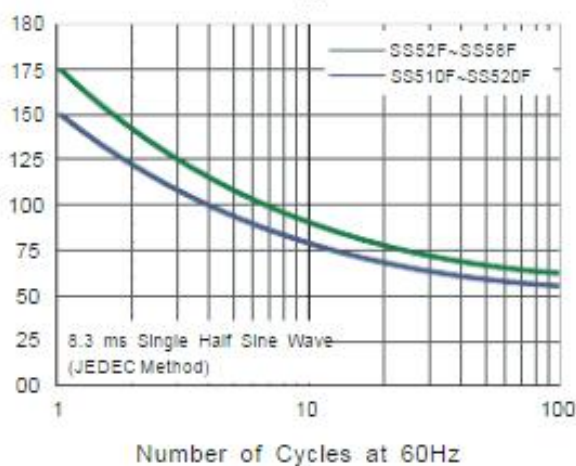


Fig.6- Typical Transient Thermal Impedance

