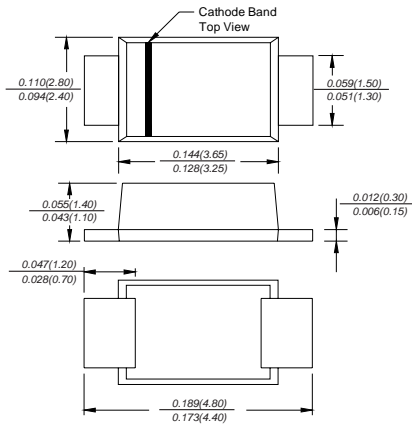


SMAF



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC SMAF molded plastic body
Terminals: leads solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.0018 ounce, 0.064 grams

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 current derate by 20%.

	SYMBOLS	SS52F	SS53F	SS54F	SS55F	SS56F	SS58F	SS510F	SS5150F	SS5200F	UNITS	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	VOLTS	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	150	VOLTS	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	VOLTS	
Maximum average forward rectified current at T_L (see fig. 1)	I_{AV}	5.0									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0									Amps	
Maximum instantaneous forward voltage at 5.0A	V_F	0.55		0.70		0.85		0.95			Volts	
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	0.5				0.2		20		10	2.0	mA
Typical junction capacitance (NOTE 1)	C_J	200									pF	
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0									°C/W	
Operating junction temperature range	T_J	-65 to +125					-65 to +150					°C
Storage temperature range	T_{STG}	-65 to +150									°C	

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

Characteristic Curves ($T_A=25$ unless otherwise noted)

