



SS12F THRU SS100F

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 1.0 Ampere

FEATURES

- Glass Passivated Die Construction
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

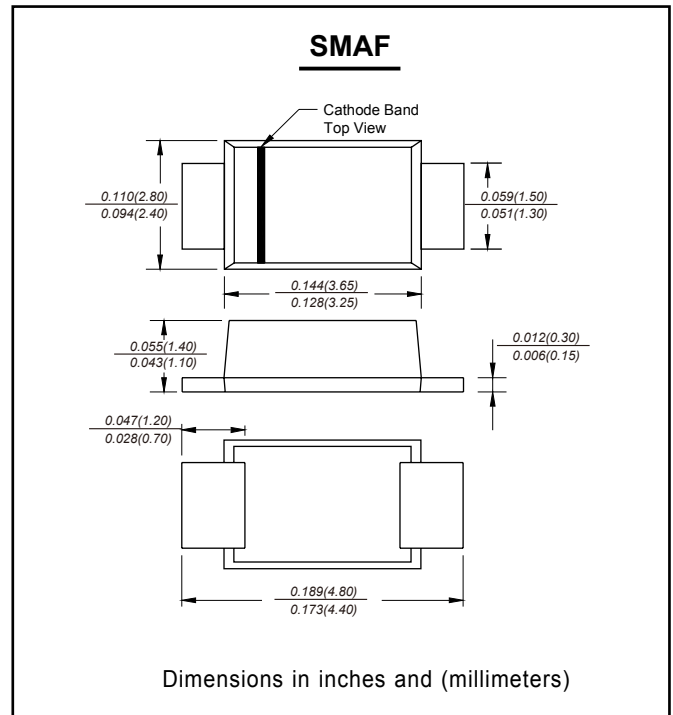
Case: JEDEC SMAF molded plastic body over passivated chip

Terminals: Solder plated, 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%.

Characteristic	SYMBOLS	SS12F	SS14F	SS16F	SS18F	SS100F	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	V
Maximum average forward rectified current at T_L (see fig.1)	$I_{(AV)}$	1.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0					A
Maximum instantaneous forward voltage at 1.0A	V_F	0.50		0.70		0.85	V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	0.5					mA
		6.0		5.0			
Typical junction capacitance (NOTE 1)	C_J	110		80			pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	88.0					°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



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

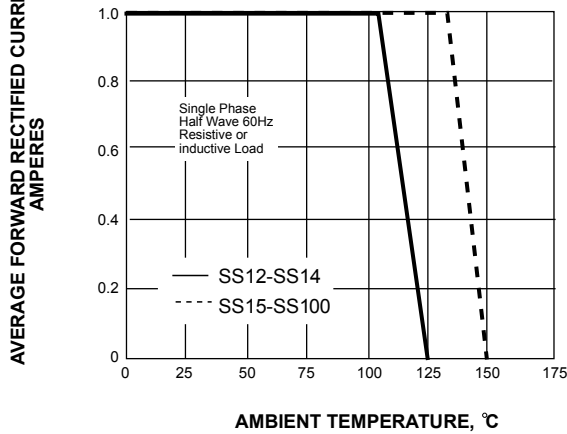


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

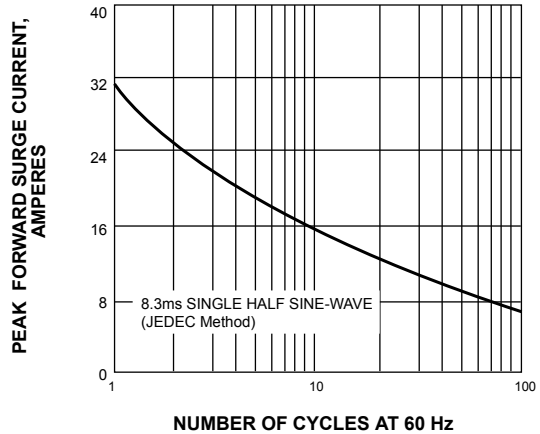


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

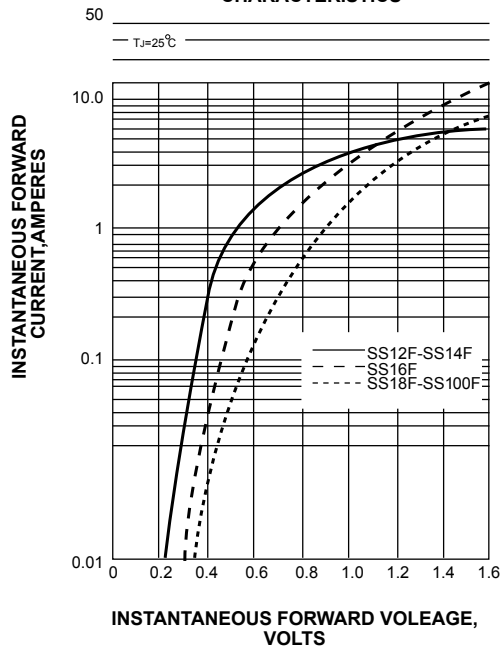


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

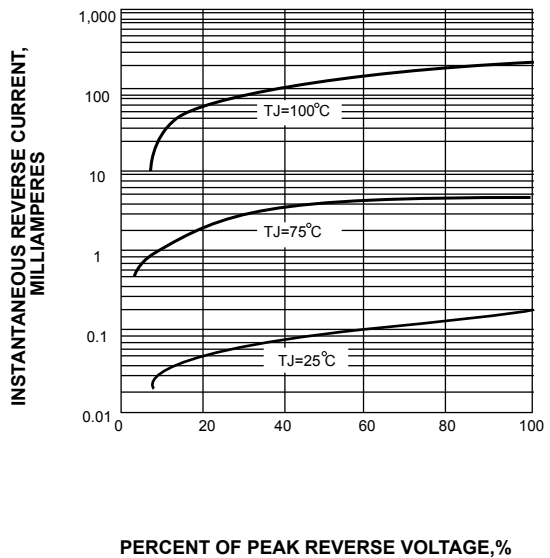


FIG. 5- TYPICAL JUNCTION CAPACITANCE

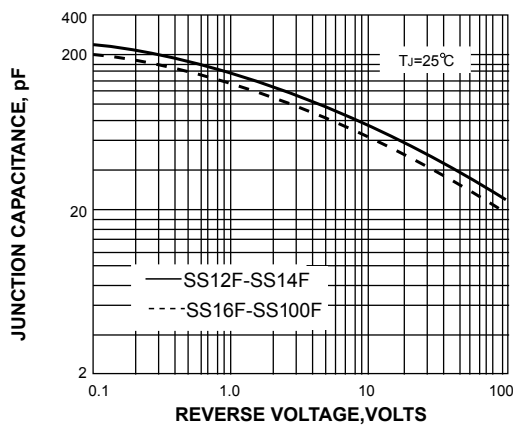


FIG. 6- TYPICAL TRANSIENT THERMAL IMPEDANCE

