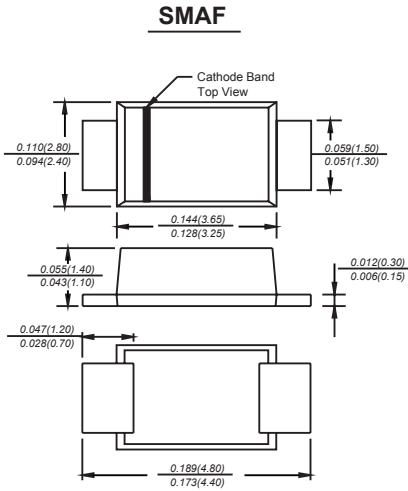


SS12 THRU SS120

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 1.0 Ampere



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: 0.0014 ounce, 0.038 grams

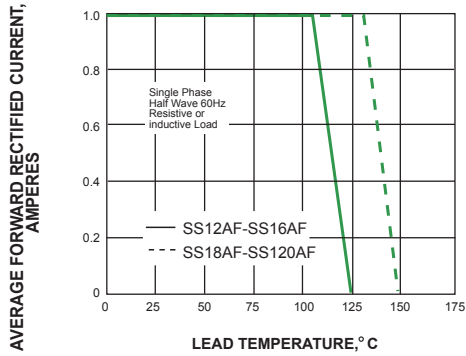
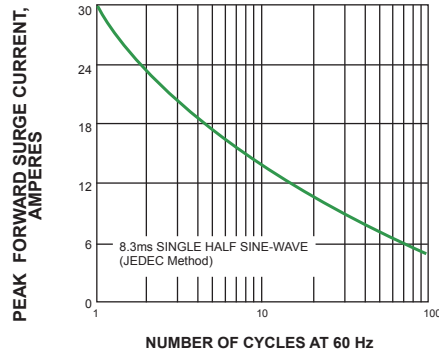
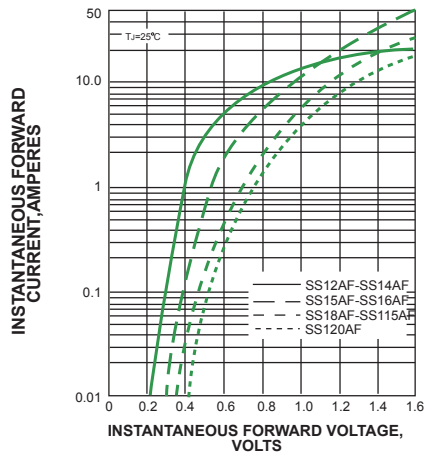
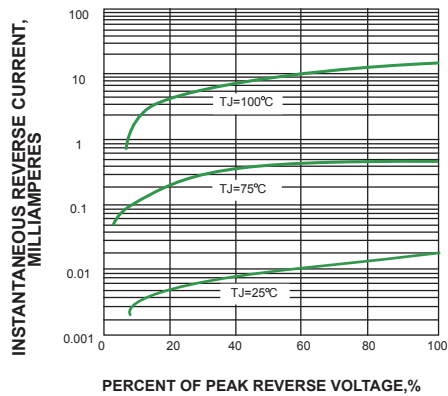
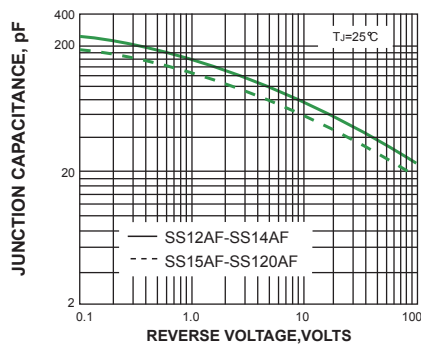
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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	SS12	SS13	SS14	SS15	SS16	SS18	SS110	SS115	SS120	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	140	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)	$I_{(AV)}$	1.0									Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0									Amps
Maximum instantaneous forward voltage at 1.0A	V_F	0.45	0.55	0.70	0.85		0.95				Volts
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					0.2				mA
Typical junction capacitance (NOTE 1)	C_J	110			90						pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	95									°C/W
Operating junction temperature range	T_J	-55 to +125					-55 to +150				°C
Storage temperature range	T_{STG}	-55 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

RATINGS AND CHARACTERISTIC CURVES SS12 THRU SS 120

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
