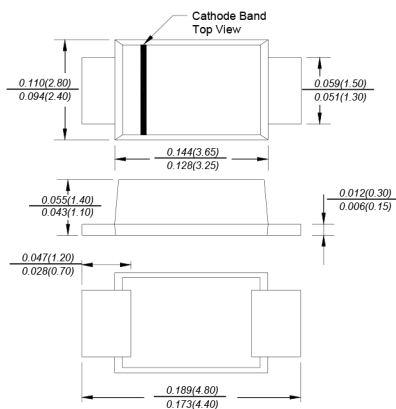


SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

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%.

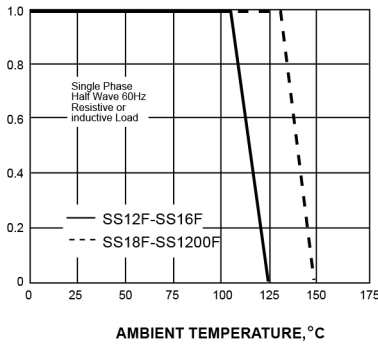
YXW Catalog Number	SYMBOLS	SS12F	SS13F	SS14F	SS15F	SS16F	SS18F	SS110F	SS1150F	SS1200F	UNITS	
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	VOLTS	
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	VOLTS	
Maximum DC blocking voltage	V _{Dc}	20	30	40	50	60	80	100	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	0.55			0.70			0.85		0.95	Volts	
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.5						0.2		mA		
		10.0			5.0		2.0					
Typical junction capacitance (NOTE 1)	C _J	110				90					pF	
Typical thermal resistance (NOTE 2)	R _{θJA}	88.0										°C/W
Operating junction temperature range	T _J	-50 to +125						-50 to +150			°C	
Storage temperature range	T _{STG}	-50 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

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

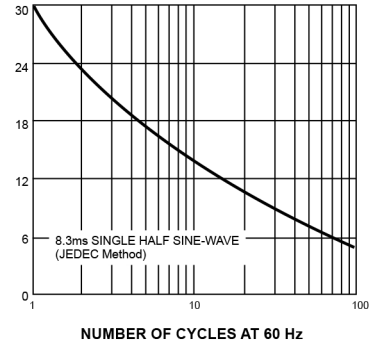
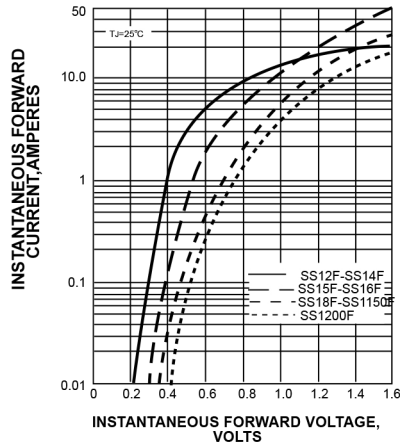


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

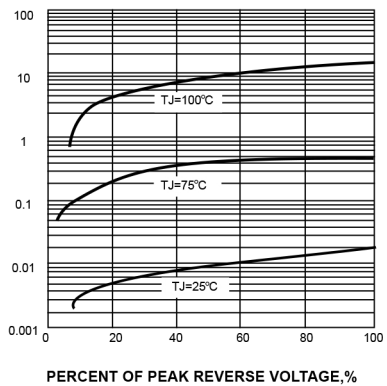
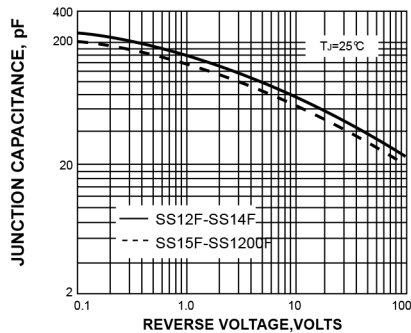


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

