

SS32F THRU SS3200F

VOLTAGE RANGE 20 to 200 Volts
CURRENT 3.0 Ampere

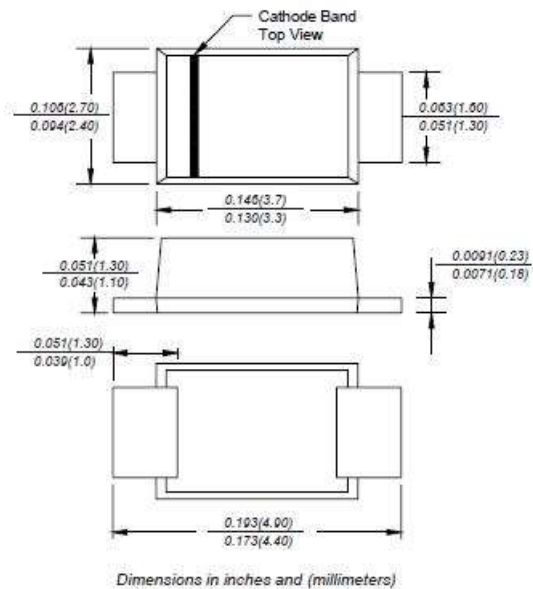
FEATURES

- 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: SMAF molded plastic body
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0018 ounce, 0.064 grams

SMAF



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 derate current by 20%.

TYPE NUMBER	SYMBOLS	SS32F	SS33F	SS34F	SS35F	SS36F	SS38F	SS310F	SS3150F	SS3200F	UNIT	
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_1 see figure.1	$I_{(AV)}$	3									Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	80									Amps	
Maximum Instantaneous Forward Voltage @ 3.0A (Note1)	V_F	0.55			0.70		0.85			0.95	Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage per element	$T_A = 25^\circ C$	0.5						0.2			mA	
	$T_A = 100^\circ C$	20				10		2				
Typical junction capacitance (NOTE 1)	C_J	500				300					pF	
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	55									°C/W	
Operating Junction Temperature	T_J	(-55 to +125)					(-55 to +150)					°C
Storage Temperature Range	T_{STG}	(-55 to +150)									°C	

Notes:

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

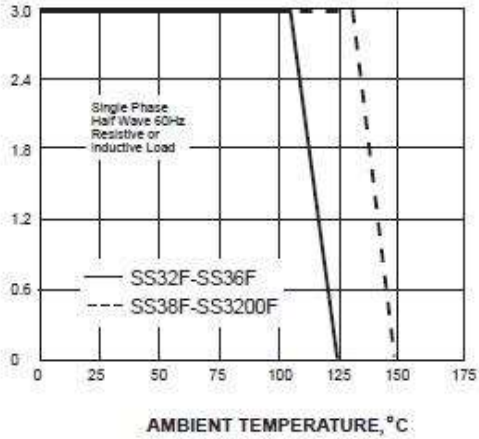


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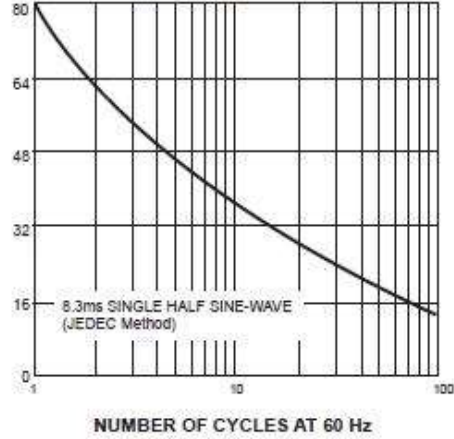
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



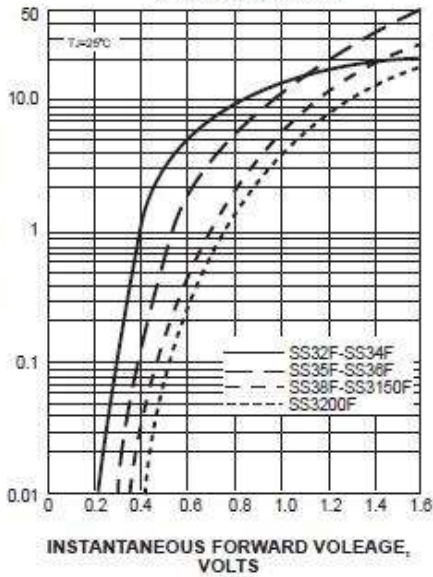
PEAK FORWARD SURGE CURRENT, AMPERES

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



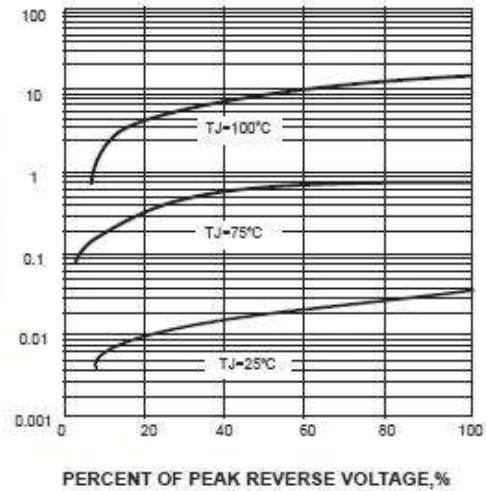
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



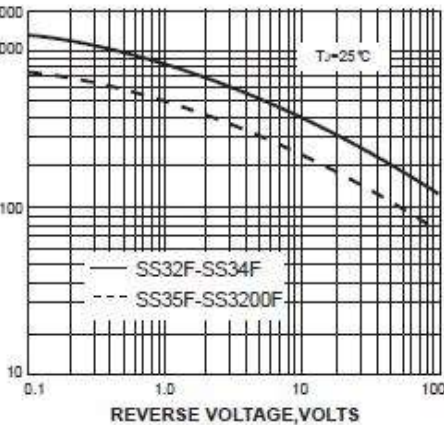
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



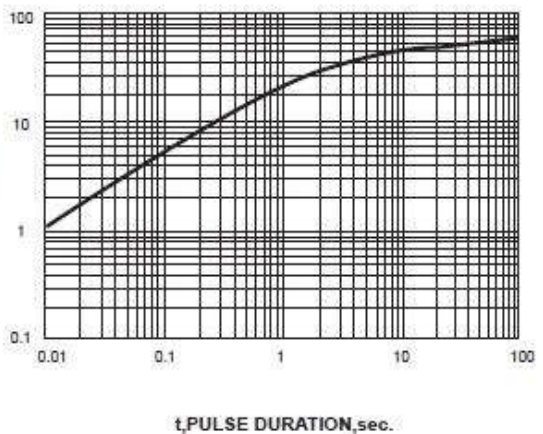
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.