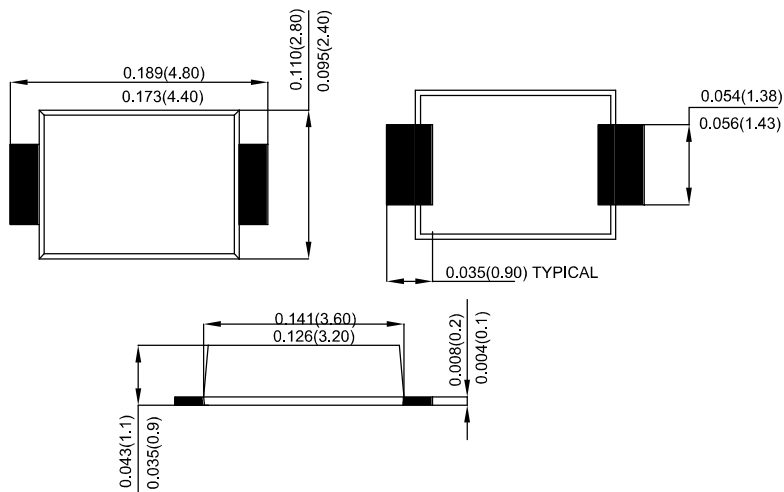




Features

- Plastic package Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Low Forward Drop
- High temperature soldering: 260°C/10 seconds at terminals

SMAF



Dimensions in inches and (millimeters)

Mechanical Data

- Terminal: Plated leads, solderable per MIL-STD-750, Method 2026
- Case: molded plastic SMAF
- Polarity: Indicated by cathode band
- Standard packaging: 12mm tape (EIA-481)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

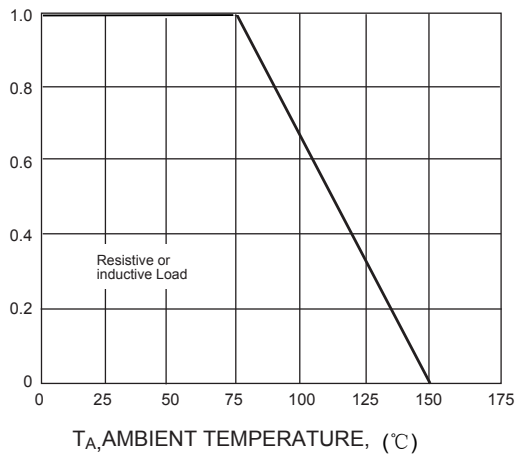
TYPE NUMBER	SYMBOL	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	
Average Rectified Output Current @ $T_A=75^\circ\text{C}$	I_o	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Forward Voltage per element @ $I_F=1.0\text{A}$	V_{FM}	1.1							V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 100							μA
Typical junction capacitance (Note 1)	C_J	12							pF
Maximum thermal resistance	$R_{\theta JA}$	75							$^\circ\text{C/W}$
Operating and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

Note: 1. Measured at 1MHz and applied $V_r=4.0$ volts.



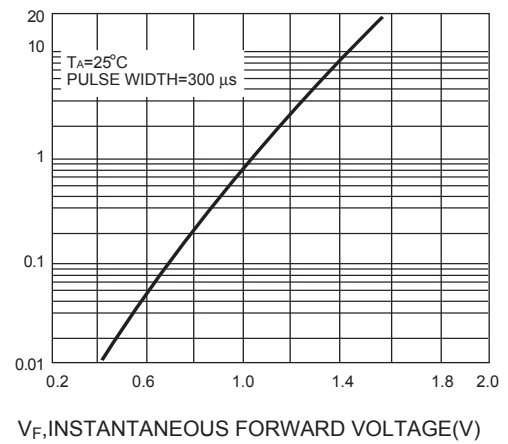
$I_{(AV)}$, AVERAGE FORWARD RECTIFIED CURRENT (A)

Fig. 1 Output Current Derating Curve



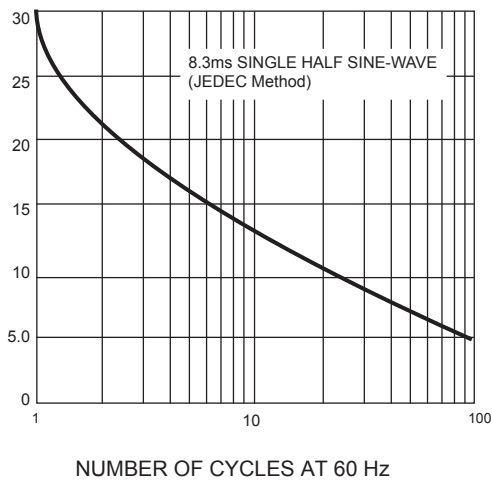
I_F , INSTANTANEOUS FORWARD CURRENT(A)

Fig. 2 Typical Instantaneous Forward Characteristics(per leg)



I_{FSM} , PEAK FORWARD SURGE CURRENT, (A)

Fig. 3 Maximum Peak Forward Surger Current (per leg)



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

Fig. 4 Typical Junction Capacitance

