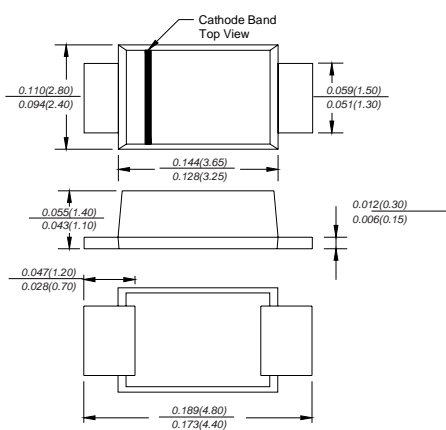


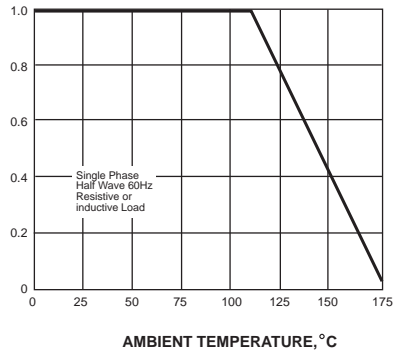
1N4001 THRU 1N4007

SMAF	FEATURES								
 <p style="text-align: center;"><i>Dimensions in inches and (millimeters)</i></p>	<ul style="list-style-type: none"> ◆ 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: 260°C/10 seconds at terminals ◆ Glass passivated chip junction 								
MECHANICAL DATA									
<p>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</p>									
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%.									
Catalog Number	SYMBOLS	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_L=75^\circ C$	$I_{(AV)}$	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	1.1							Volts
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$	I_R	5.0 50.0							μA
Typical junction capacitance (NOTE 1)	C_J	15.0							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	75.0							$^\circ C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150							$^\circ C$
<p>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</p>									

1N4001 THRU 1N4007

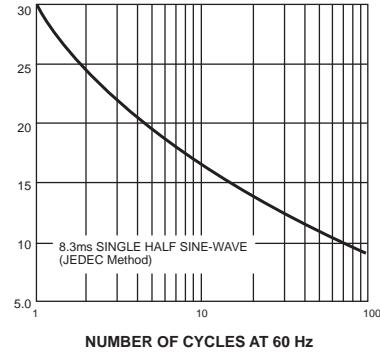
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



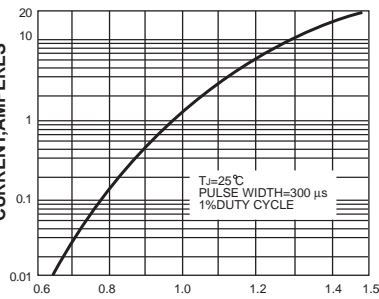
PEAK FORWARD SURGE CURRENT, AMPERES

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



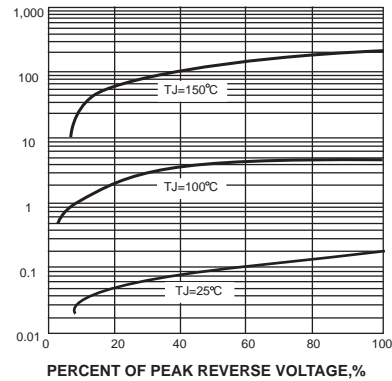
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



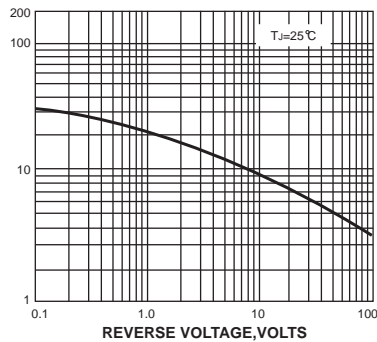
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

