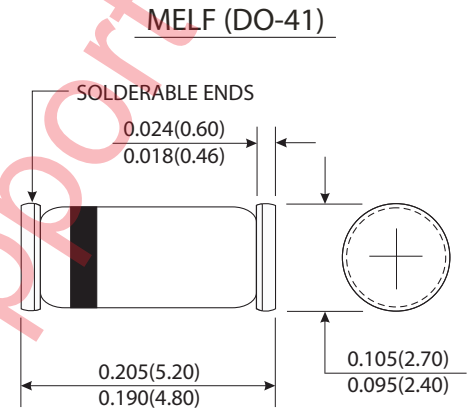


Features

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Glass passivated junction
- High temperature soldering guaranteed: 250°C/10 seconds, at terminals

Mechanical Data

- Case : JEDEC MELF(DO-41) molded plastic body
- Terminals : Lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.0041 ounce, 0.116 gram



Dimensions in inches and (millimeters)

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 by 20%)

	Symbols	SM 4001	SM 4002	SM 4003	SM 4004	SM 4005	SM 4006	SM 4007	Units
Maximum recurrent 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 0.375"(9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms 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 reverse current at rated voltage	$T_A=25^\circ\text{C}$	5.0							μA
	$T_A=125^\circ\text{C}$	50.0							
Typical thermal resistance (Note 2) (Note 3)	$R\theta_{JA}$	75.0							$^\circ\text{C/W}$
	$R\theta_{JL}$	30.0							
Typical junction capacitance (Note 1)	C_J	15.0							pF
Maximum DC blocking voltage temperature	T_A	+150							$^\circ\text{C}$
Operating and storage temperature range	T_J T_{STG}	-65 to +150							$^\circ\text{C}$

Notes:

- (1) Measured at 1MHz and applied reverse voltage of 4.0V DC.
- (2) Thermal resistance from junction to ambient, 0.24 × 0.24"(6.0 × 6.0mm) copper pads to each terminals
- (3) Thermal resistance from junction to terminals, 0.24 × 0.24"(6.0 × 6.0mm) copper pads to each terminals

RATINGS AND CHARACTERISTIC CURVES SM4001 THRU SM4007

FIG.1-FORWARD CURRENT DERATING CURVE

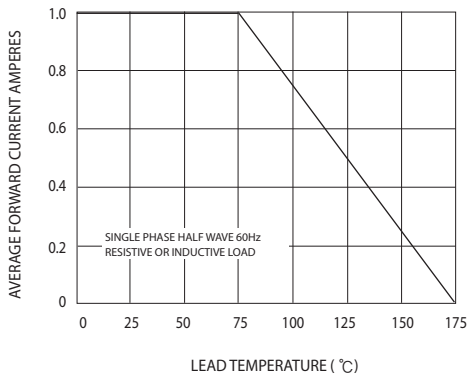


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

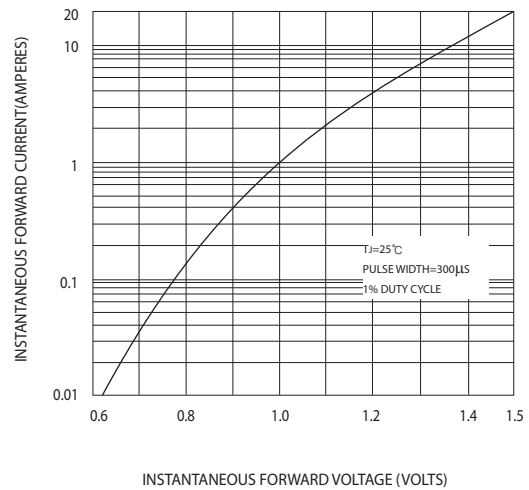


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

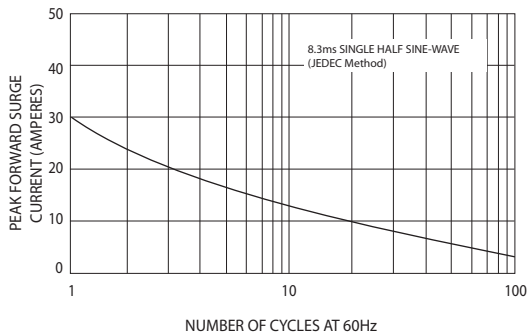


FIG.4-TYPICAL REVERSE CHARACTERISTICS

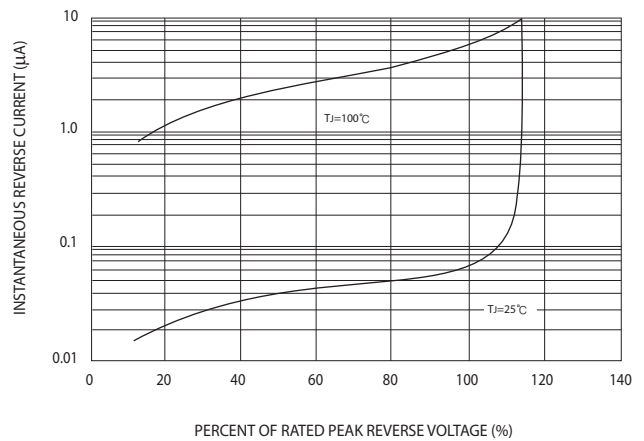


FIG.5-TYPICAL JUNCTION CAPACITANCE

