

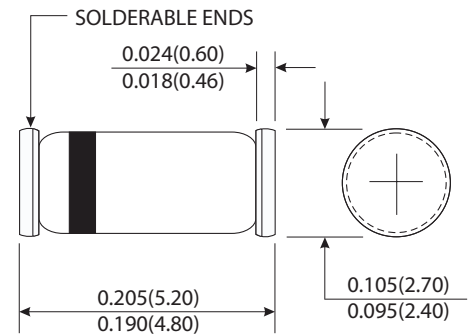
## SM4933 THRU SM4937

CURRENT 1.0 Ampere  
VOLTAGE 50 to 600 Volts

### 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

### MELF (DO-41)



Dimensions in inches and (millimeters)

### 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

### 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	SM4933	SM4934	SM4935	SM4936	SM4937	Units
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	Volts
Maximum average forward rectified current T <sub>A</sub> =75 °C	I <sub>(AV)</sub>	1.0					Amp
Peak forward surge current 8.3ms half sine wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30					Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.2					Volts
Maximum DC reverse current at rated DC blocking voltage	T <sub>A</sub> =25 °C	5.0					μ A
	T <sub>A</sub> =100 °C	100					
Maximum reverse recovery time (Note 3)	t <sub>rr</sub>	150					ns
Typical junction capacitance (Note 1)	C <sub>J</sub>	15.0					pF
Typical thermal resistance (Note 2)	R <sub>θ JA</sub>	60					°C/W
Operating and storage temperature range	T <sub>J</sub>	-55 to +150					°C
	T <sub>STG</sub>	-55 to +150					

#### Notes:

- (1) Measured at 1MHz and applied reverse voltage of 4.0V DC.
- (2) Thermal resistance from junction to ambient.
- (3) Reverse recovery test conditions : I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

## RATINGS AND CHARACTERISTIC CURVES SM4933 THRU SM4937

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

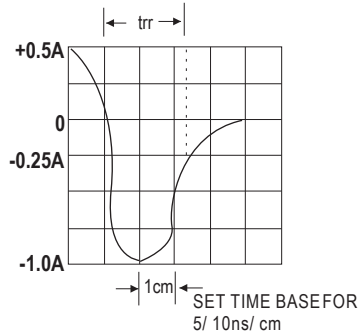
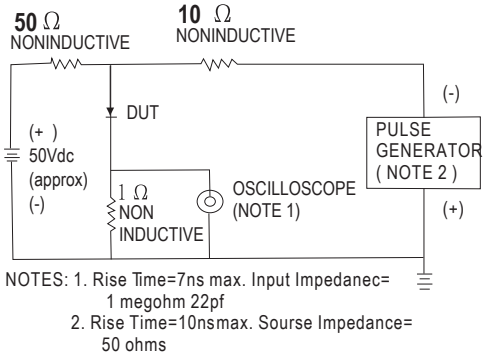


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

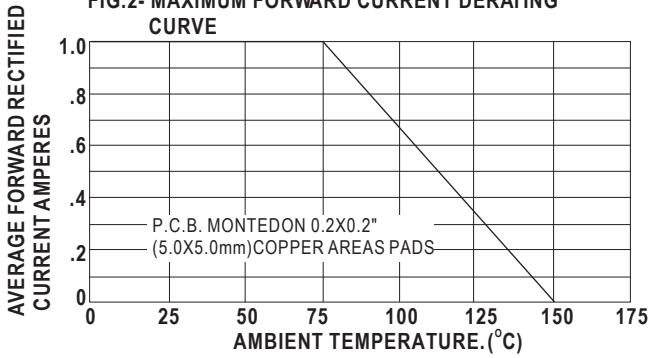


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

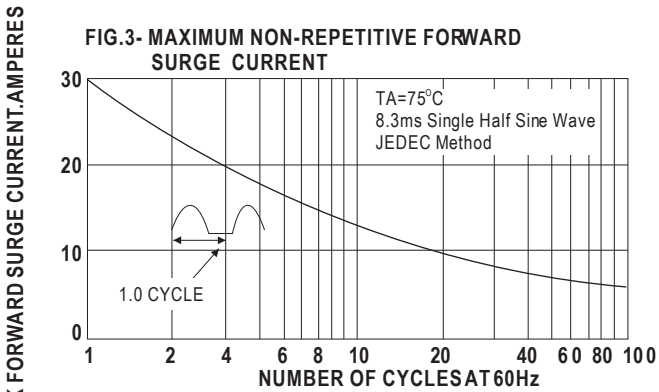


FIG.4- TYPICAL JUNCTION CAPACITANCE

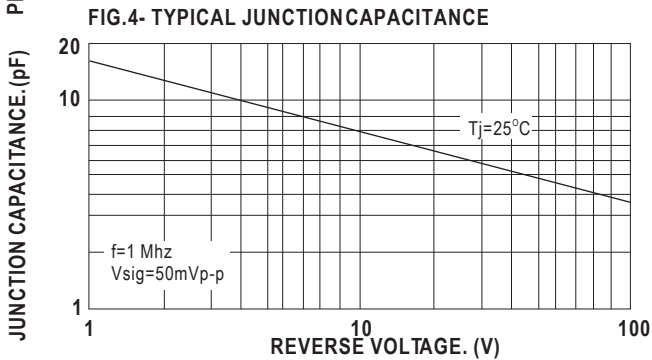


FIG.5- TYPICAL FORWARD CHARACTERISTICS

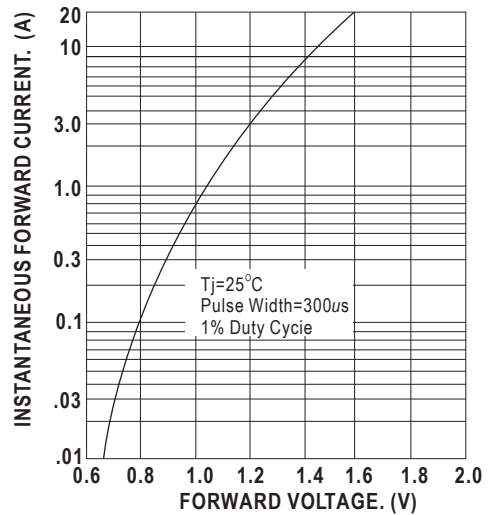


FIG.6- TYPICAL REVERSE CHARACTERISTICS

