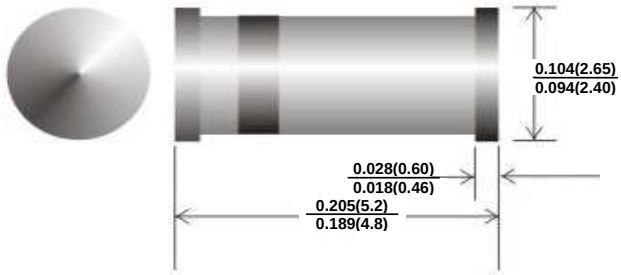
SM4933 THRU SM4937

SURFACE MOUNT FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 1.0 Ampere

MELF



Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Surface mount package ideally suited for automatic insertion
- Fast switching for high efficiency, Low reverse leakage
- Pb free product : 99% Sn above can meet RoHS environment substance directive request
- High forward surge current capability
- High temperature soldering guaranteed: 260℃/10 seconds at terminals

MECHANICAL DATA

Case: MELF , Molded plastic body
Terminals: Solderable per MIL-STD-750，Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwis e specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

PARAMETER	*SYMBOLS*	SM4933	SM4934	SM4935	SM4936	SM4937	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	Volts
Minimum DC Breakdown Voltage	V_{DC}	50	100	200	400	600	Volts
Average Rectified current at T_L =90℃	$I_{(AV)}$	1.0					Amp
Non-repetitive Peak Forward Surge Curren 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0					Amps
Maximum Forward Voltage at IF=1.0A	V_F	1.3					Volts
Maximum DC reverse current T_A= 25℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 50					μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	200					nS
Typical Junction Capacitance (NOTE 2)	C_J	15.0					pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	50.0					℃/W
Operating Junction Temperature Range	T_J	150					℃
Storage Temperature Range	T_{STG}	-65 ～ +150					℃

Note: 1.Reverse recovery condition IF=0.5A,IR=1.0A,Irr=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Mounted with minimum recommended padsize，PCBoard FR4.

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

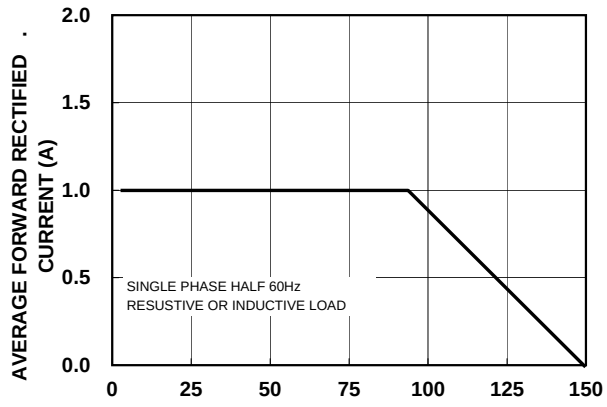

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

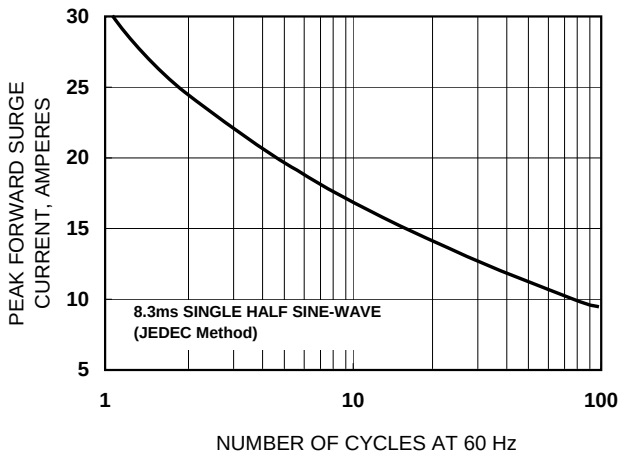

FIG. 3-TYPICAL REVERSE CHARACTERISTICS

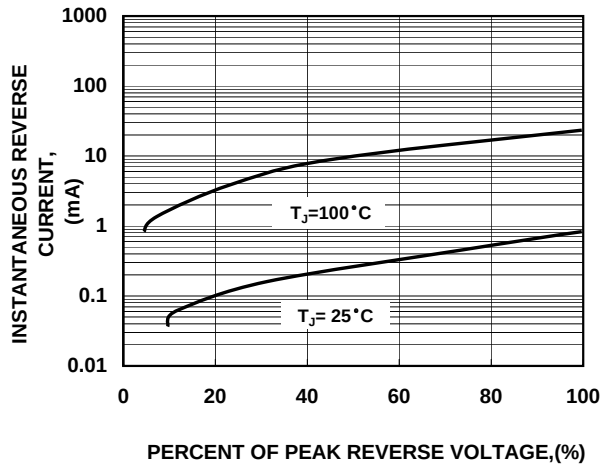

FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

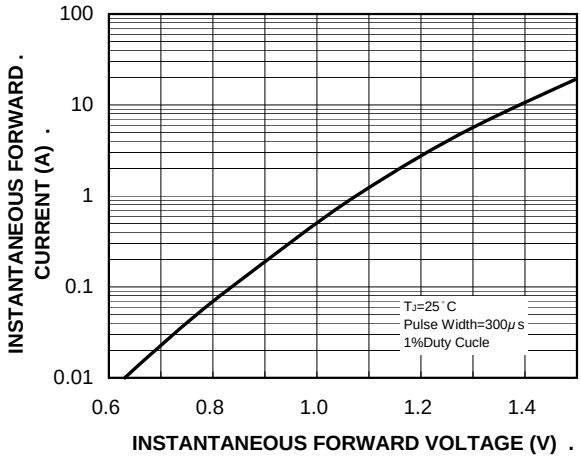

FIG. 5-TYPICAL JUNCTION CAPACITANCE

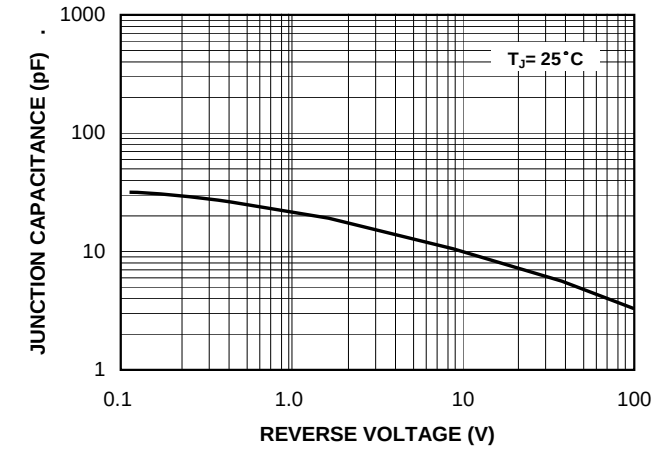

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE