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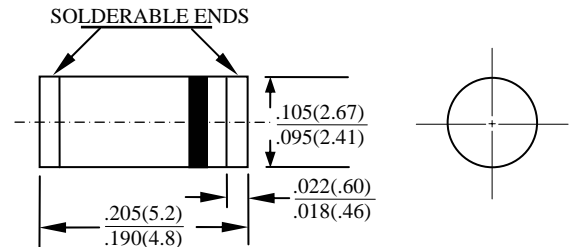
## 1A SURFACE MOUNT FAST RECOVERY RECTIFIERS SM4933 THRU SM4937

### FEATURES

- FAST SWITCHING
- GLASS PASSIVATED DEVICE
- IDEAL FOR SURFACE MOUNTED APPLICATIONS
- LOW LEAKAGE CURRENT
- FAST SWITCHING TIME

### MECHANICAL DATA

- CASE: TRANSFER MOLDED, MELF, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: SOLDERABLE PER MIL-STD-750, METHOD 2026
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 0.135 GRAMS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED  
SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	SM4933	SM4934	SM4935	SM4936	SM4937	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	50	100	200	400	600	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	35	70	140	280	420	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	50	100	200	400	600	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT AT $T_L=75^\circ\text{C}$	$I_O$	1.0					A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	30					A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	$C_J$	15					PF
STORAGE TEMPERATURE RANGE	$T_{STG}$	- 55 TO + 150					°C
OPERATING TEMPERATURE RANGE	$T_{OP}$	- 55 TO + 150					°C

### ELECTRICAL CHARACTERISTICS ( $A_T T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	SM4933	SM4934	SM4935	SM4936	SM4937	UNITS
MAXIMUM FORWARD VOLTAGE AT $I_O$ DC	$V_F$	1.3					V
MAXIMUM REVERSE CURRENT AT 55°C	$I_R$	5.0					$\mu\text{A}$
MAXIMUM REVERSE RECOVERY TIME (NOTE 2)	$T_{RR}$	150					nS

NOTE: 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

2. REVERSE RECOVERY TEST CONDITIONS:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

# RATING AND CHARACTERISTIC CURVES SM4933 THRU SM4937

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

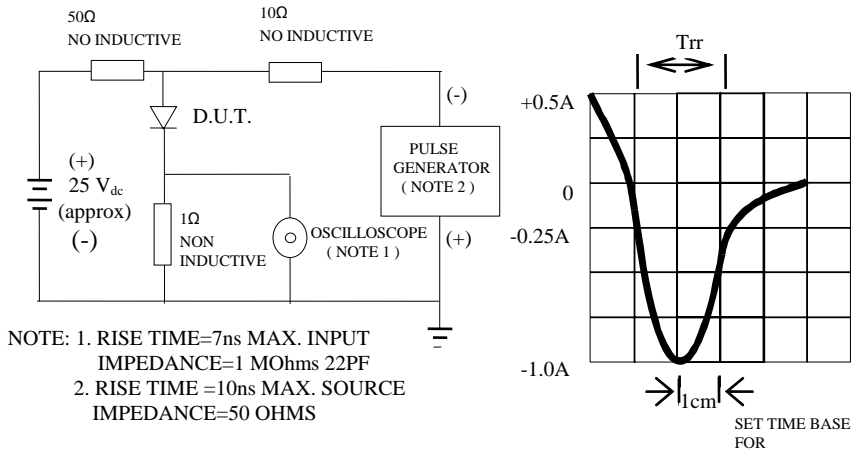


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

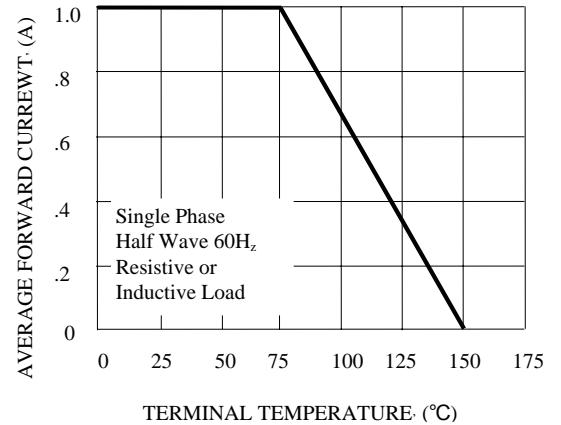


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

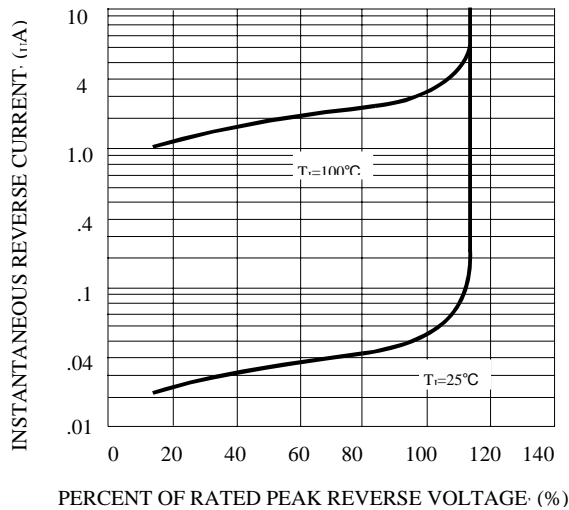


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

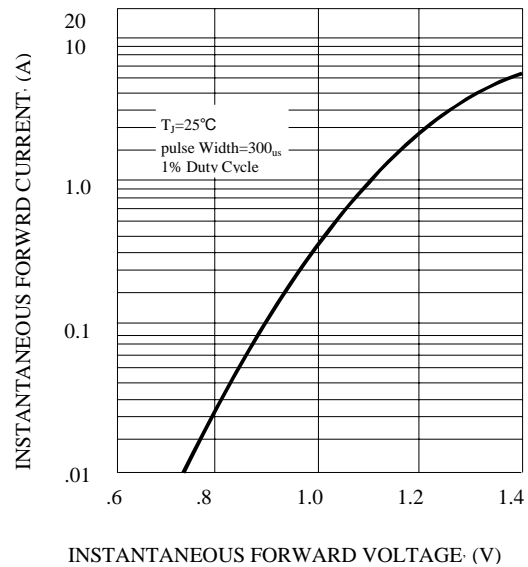


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

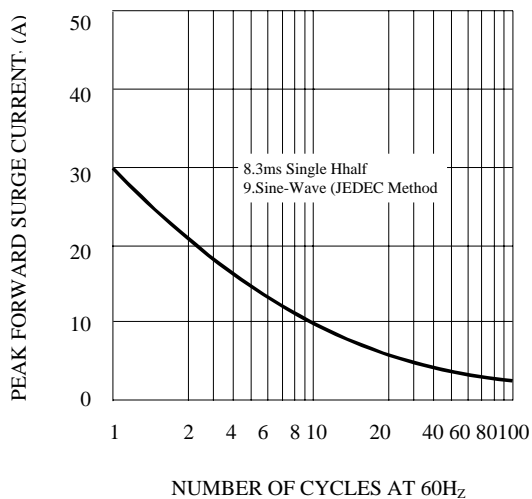


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

