

Glass Passivated Super Fast Silicon Rectifiers

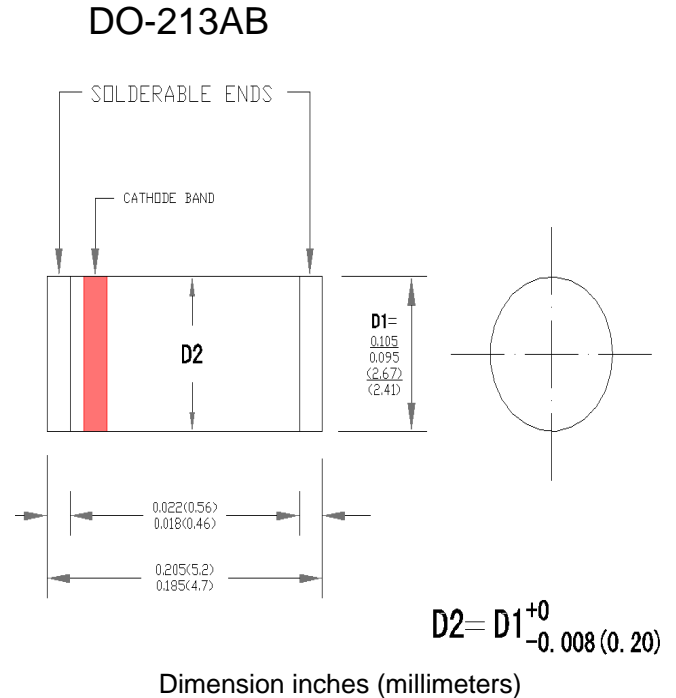
SM4933 THRU SM4937

FEATURES

- Ideal for surface mounted applications
- Easy pick and place
- Low leakage current
- Fast switching
- High temperature soldering guaranteed:
250°C/10 seconds/.375" (9.5mm) lead lengths

MECHANICAL DATA

- DO-213AB Case: Molded plastic DO-213AB
- Epoxy: UL94V-0 rate flame retardant
- Terminals: Plated terminals, solderable per MIL-STD-202, method 208
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.12gram



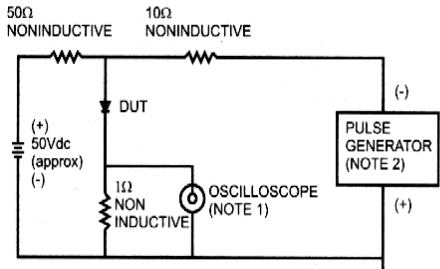
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C Ambient temp. Unless otherwise specified. Single phase, half sine wave, 60HZ, resistive or inductive load.
For capacitive load, derate current by 20%

	SYMBOL	SM 4933	SM 4934	SM 4935	SM 4936	SM 4937	UNITS
Maximum current Peak Reverse Voltage	VRRM	50	100	200	400	600	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current $T_T=55^\circ\text{C}$	I(AV)	1.0					Amps
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	IFSM	30					Amps
Maximum Instantaneous Forward Voltage @ 1.0A	VF	1.3					Volts
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	IR	5.0 100.0					uA
Maximum Reverse Recovery Time (Note 1)	Trr	200					nS
Typical Junction Capacitance (Note 2)	CJ	15					pF
Operating AND Storage Temperature Range	TJ /TSTG	-55 to +150					°C

Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

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



NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
2. Rise Time=10ns max. Source Impedance= 50 ohms

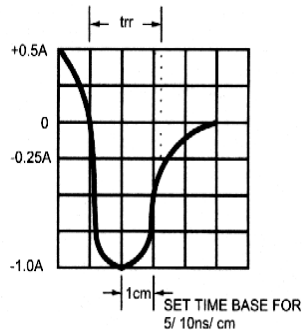


FIG.2–TYPICAL FORWARD CURRENT DERATING CURVE

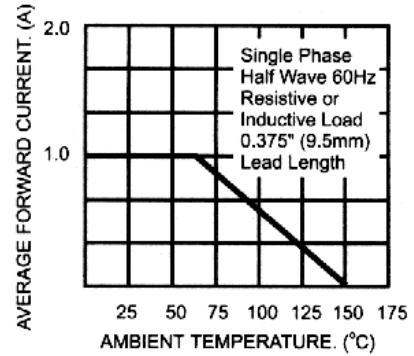


FIG. 3 – TYPICAL REVERSE CHARACTERISTIC

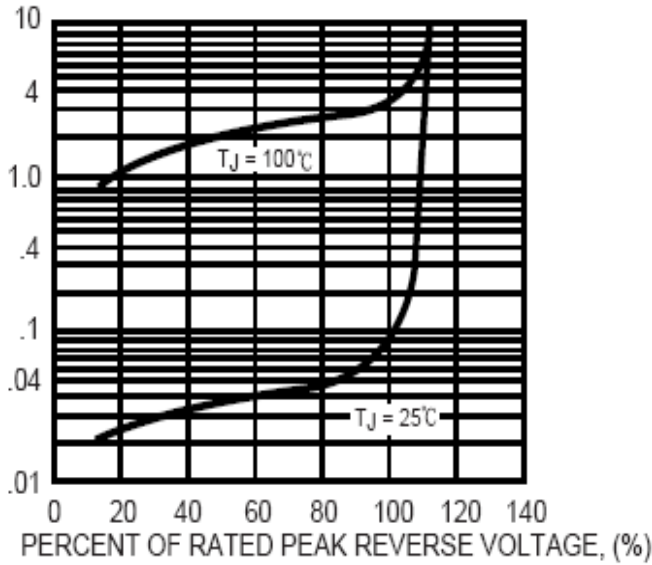


FIG. 4 – TYPICAL FORWARD CHARACTERISTICS

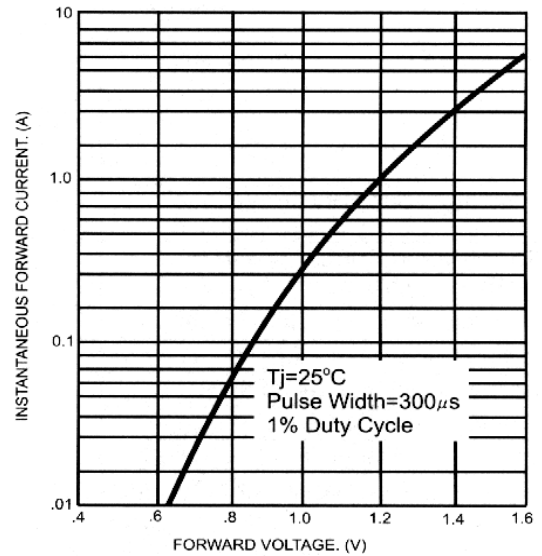


FIG. 5 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

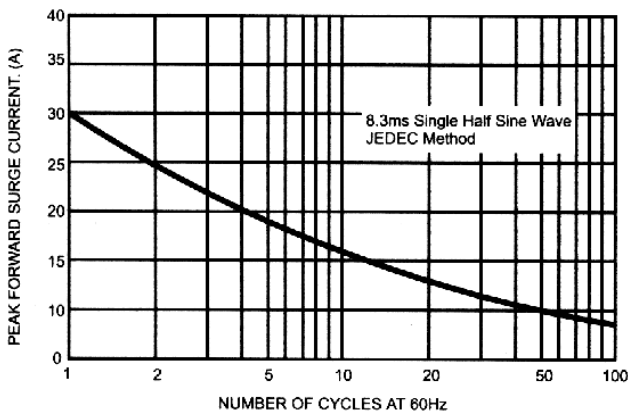


FIG. 6 – TYPICAL JUNCTION CAPACITANCE

