



# FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206



## MASTER INSTRUMENT CORPORATION

**SURFACE MOUNT GLASS PASSIVATED FAST  
RECOVERY SILICON RECTIFIERS  
SM4933 THRU SM4937**

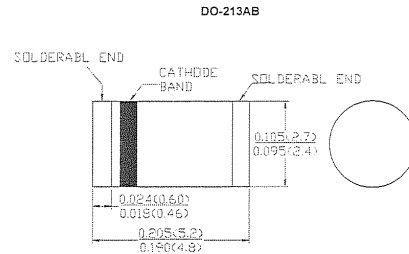
**VOLTAGE RANGE** 50 to 600 Volts  
**Forward Current** 1.0 Amperes

### FEATURES

- For surface mounted applications
- Glass passivated chip junction.
- Low leakage current
- Fast switching
- Plastic package has underwrites laboratory flammability classification 94v-0
- High temperature soldering guaranteed:  
250 °C/10 seconds at terminals .

### MECHANICAL DATA

- Case: molded plastic
- Polarity: band indicate cathode .
- Mounting Position: Any.
- Weight: 0.12 grams



Dimension 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 current by 20%.

	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
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current, at $T_A=50^\circ\text{C}$	$I_{(AV)}$	1.0					Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30					Amps
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.3					Volts
Maximum DC Reverse Current at rated DC blocking voltage at	$T_A=25^\circ\text{C}$	5.0					$\mu\text{A}$
	$T_A=125^\circ\text{C}$	100					
Maximum Reverse Recovery Time (Note 1)	$T_{RR}$	200					ns
Typical Junction Capacitance (Note 2)	$C_j$	15					PF
Maximum Thermal Resistance (Note 3)	$R_{QL}$	30					$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175					$^\circ\text{C}$

#### NOTES:

- 1.Reverse recovery test condition,  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{RR}=0.25\text{A}$ .
- 2.Measured at 1.0MHZ and applied reverse voltage of 4.0 volts.
- 3.Thermal resistance junction to terminal 6.0mm<sup>2</sup> copper pads to each terminal.



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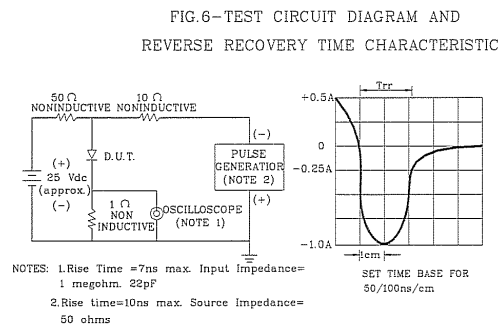
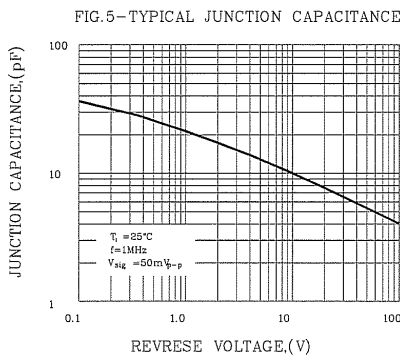
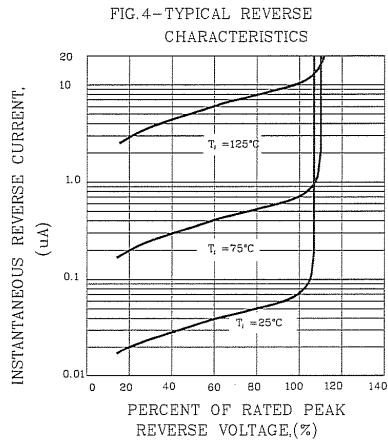
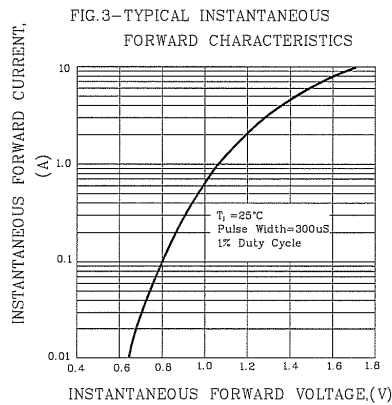
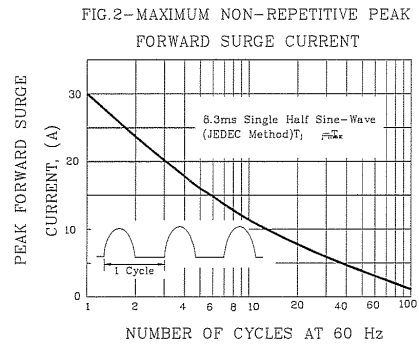
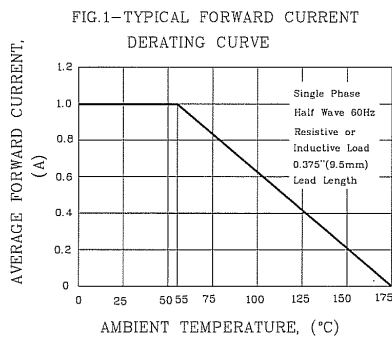
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RATINGS AND CHARACTERISTIC CURVES SR302 THRU SR310

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

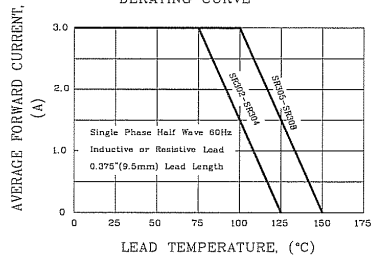


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

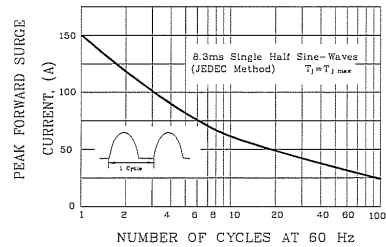


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

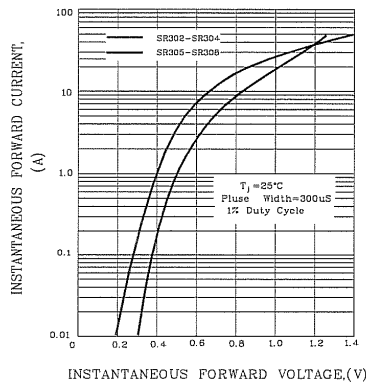


FIG.4-TYPICAL REVERSE CHARACTERISTICS

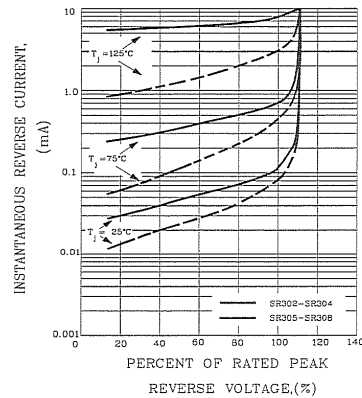


FIG.5-TYPICAL JUNCTION CAPACITANCE

