

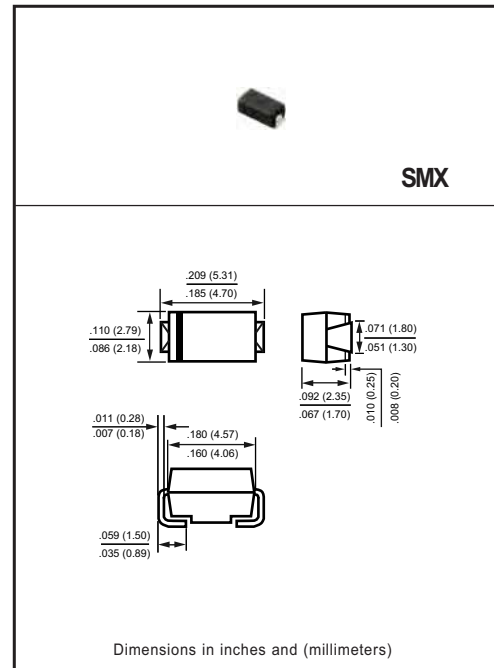
**SURFACE MOUNT
FAST RECOVERY SILICON RECTIFIER
VOLTAGE RANGE 200 to 600 Volts CURRENT 1.0 Ampere**

FEATURES

- * Glass passivated device
- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * Mounting position: Any
- * Weight: 0.057 gram

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-O



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%.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	FM4935W	FM4936W	FM4937W	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	Volts
Maximum RMS Voltage	V_{RMS}	140	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	200	400	600	Volts
Maximum Average Forward Rectified Current at $T_A = 55^\circ\text{C}$	I_O		1.0		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}		30		Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$		30		$^\circ\text{C}/\text{W}$
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$		70		$^\circ\text{C}/\text{W}$
Typical Junction Capacitance (Note 2)	C_J		15		pF
Operating Temperature Range	T_J		150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}		-55 to + 150		$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	FM4935W	FM4936W	FM4937W	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V_F		1.2		Volts
Maximum Full Load Reverse Current, Full cycle Average $T_A = 55^\circ\text{C}$	I_R		50		μA
Maximum Average Reverse Current @ $T_A = 25^\circ\text{C}$			5		μA
at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$			100		μA
Maximum Reverse Recovery Time (Note 4)	t_{rr}		200		nSec

- NOTES : 1. Thermal Resistance : Mounted on PCB.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
4. Test Conditions: $I_F = 1.0\text{A}$, $V_R = 30\text{V}$.

RATING AND CHARACTERISTICS CURVES (FM4935W THRU FM4937W)

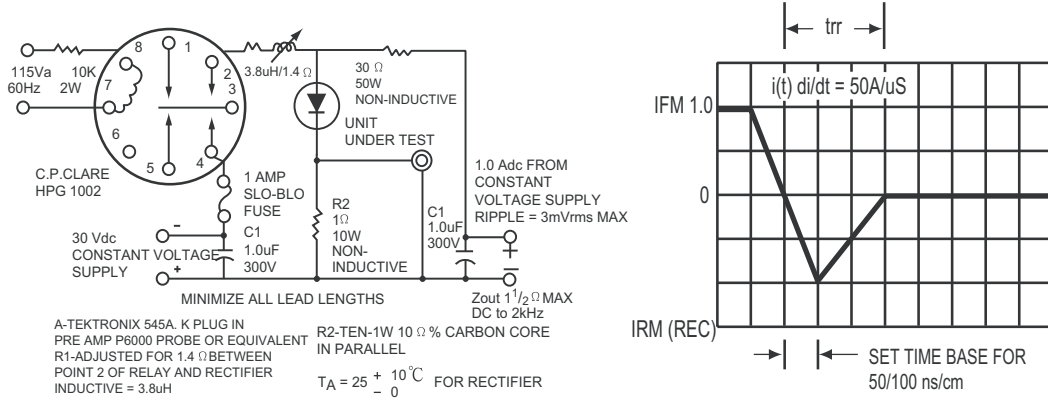


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

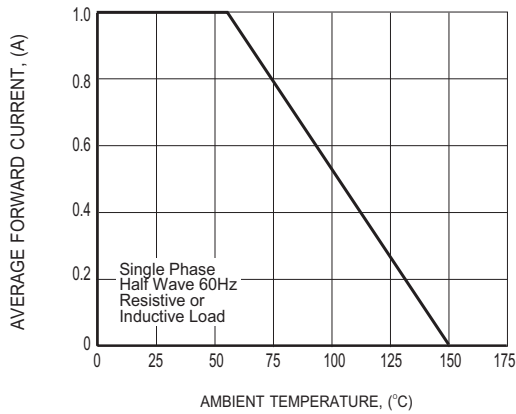


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

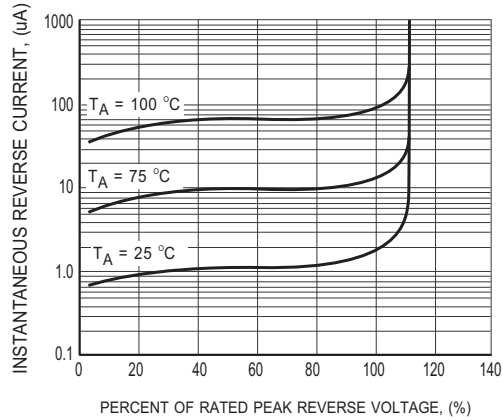


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (FM4935W THRU FM4937W)

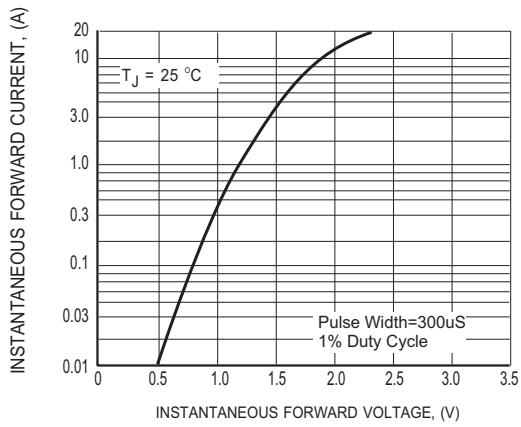


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

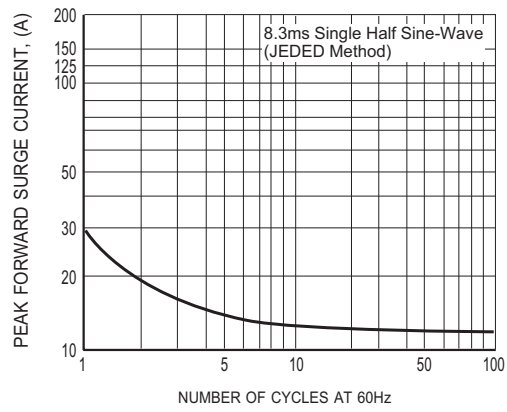


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

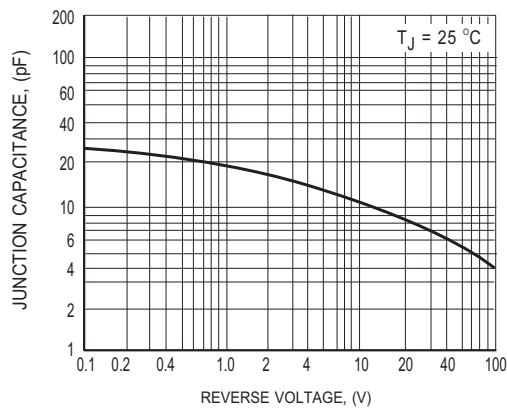
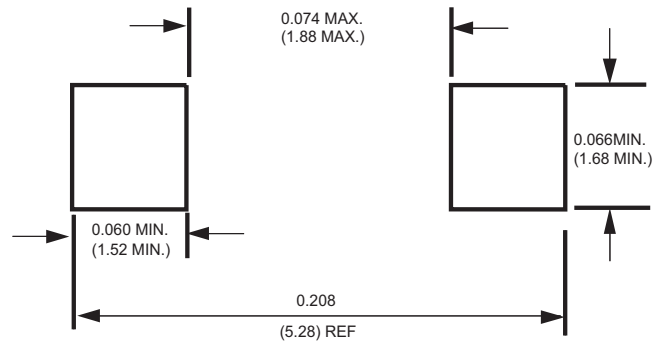


FIG.6 TYPICAL JUNCTION CAPACITANCE

Mounting Pad Layout



Dimensions in inches and (millimeters)

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SMX	-T	1,500	6,000	---	---	178	390*205*310	48,000	---
SMX	-W	5,000	10,000	---	---	330	360*355*360	80,000	15.20

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