

FM4933 THRU FM4937

# SURFACE MOUNT GLASS PASSIVATED FAST RECOVERY SILICON RECTIFIER

VOLTAGE RANGE 50 to 600 Volts CURRENT 1.0 Ampere

#### **FEATURES**

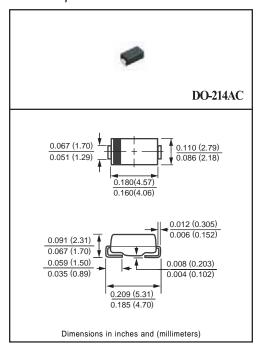
- \* Glass passivated device
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.057 gram

#### MECHANICAL DATA

\* Epoxy: Device has UL flammability classification 94V-0

#### 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 (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	FM4933	FM4934	FM4935	FM4936	FM4937	UNITS
Maximum Recurrent 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 at TA = 55°C	lo		Amps				
Peak Forward Surge Current IFM (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	30					Amps
Typical Current Squared Time	l <sup>2</sup> t 3.7						A <sup>2</sup> S
	(Note 2) RθJL	30					°C/W
Maximum Thermal Resistance	(Note 3) RθJA		°C/W				
Typical Junction Capacitance (Note 1)	Cı	15					pF
Operating and Storage Temperature Range	TJ, TSTG	-55 to + 150					°C

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

	,							
CHARACTERISTICS	SYMBOL	FM4933	FM4934	FM4935	FM4936	FM4937	UNITS	
Maximum Forward Voltage at 1.0A DC	VF	1.2					Volts	
Maximum Full Load Reverse Current, Full cycle Average		50 5.0					uAmps	
Maximum Average Reverse Current at	IR						uAmps	
Rated DC Blocking Voltage	@TA = 125°C		100					uAmps
Maximum Reverse Recovery Time (Note 4)	trr	200				nSec		

NOTES : 1. Measured at 1.0 MHz and applied average voltage of 4.0VDC

- 2. Thermal resistance junction to terminal 6.0mm² copper pads to each terminal.
- 3. Thermal resistance junction to ambient, 6.0mm² copper pads to each terminal.
- 4. Test Conditions: IF = 1.0A, VR = 30V.

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REV:B

### RATING AND CHARACTERISTIC CURVES (FM4933 THRU FM4937)

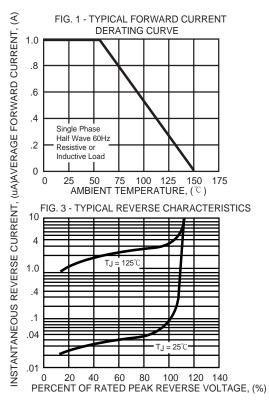
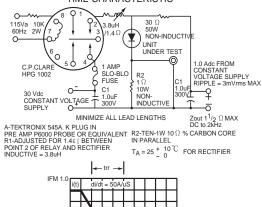
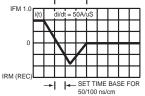
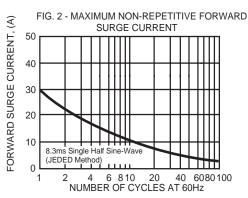
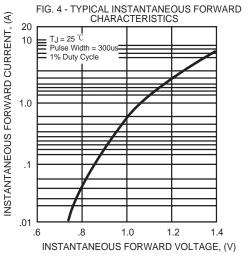


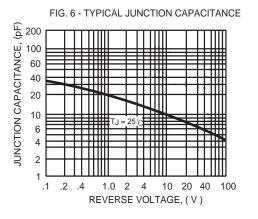
FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC





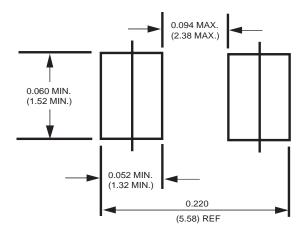








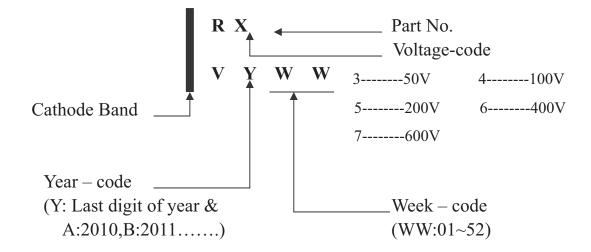
## Mounting Pad Layout



Dimensions in inches and (millimeters)



# **Marking Description**



# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

PACKA	GE	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)
SMA		-W	7,500	15,000			330	360*355*360	120,000	15.2

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)
SMA	-T	2,000	8,000			178	390*205*310	64,000	7.8

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