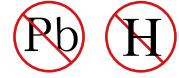




**FAST SWITCHING SURFACE MOUNT RECTIFIER**  
**VOLTAGE- 50 to 1000 Volts CURRENT - 3.0 Amperes**



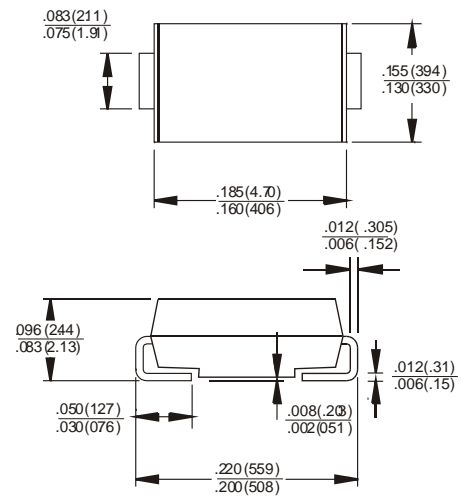
**FEATURES**

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- High temperature soldering : 260 °C /10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request.

**MECHANICAL DATA**

- Case: JEDEC DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750 ,
- Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 12mm tape (EIA-481)

SMB/DO-214AA Unit:inch(mm)



**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%.

	SYMBOLS	FR3AB	FR3BB	FR3DB	FR3GB	FR3JB	FR3KB	FR3MB	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at TL=90°C	I(AV)	3.0							A
Peak Forward Surge Current 8.3ms single half sinewave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	100							A
Maximum Instantaneous Forward Voltage at 3.0A	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current TA=25°C at Rated DC Blocking Voltage TA=125°C	I <sub>R</sub>	10.0 300							uA
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	150				250	500		ns
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	60.0							pF
Maximum Thermal Resistance(Note 3)	RθJL	15.0							°C / W
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150							°C

- NOTES :**
1. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, Irr=0.25A
  2. Measured at 1 MHz and applied Vr = 4.0 volts.
  3. 8.0 mm<sup>2</sup> ( .013mm thick ) land areas.

# DEVICE CHARACTERISTICS

## FR3AB THRU FR3MB

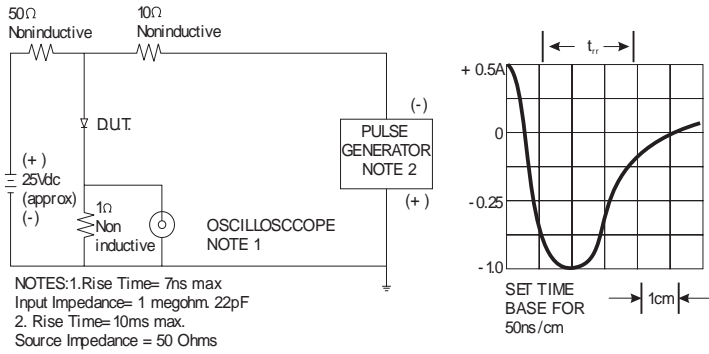


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

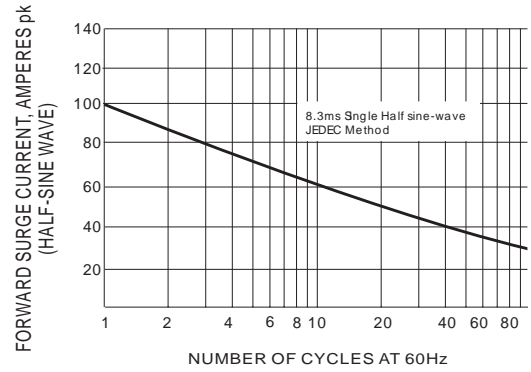


Fig. 2-MAXIMUM NON-REPEITIVE SURGE CURRENT

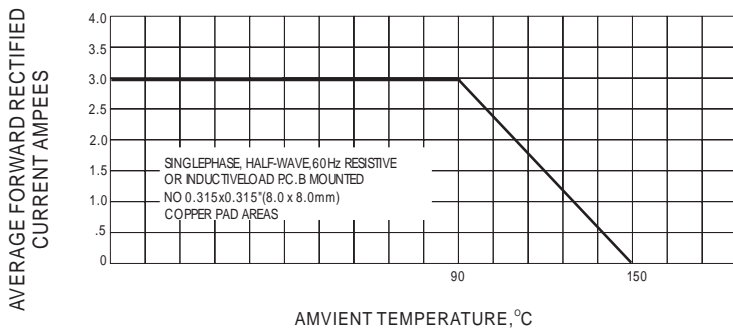


Fig. 3-MAXIMUM AVERAGE FORWARD CURRENT RATING

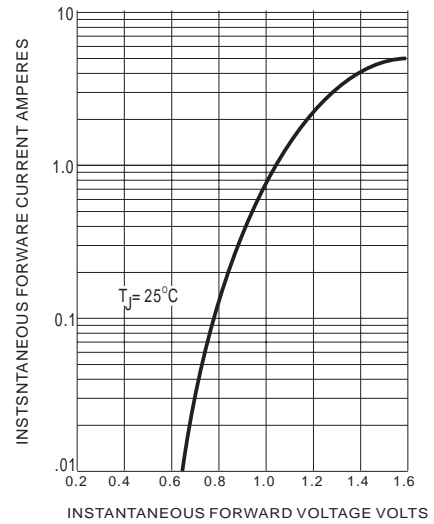


Fig. 4-FORWARD CURRENT DERATING CURRENT

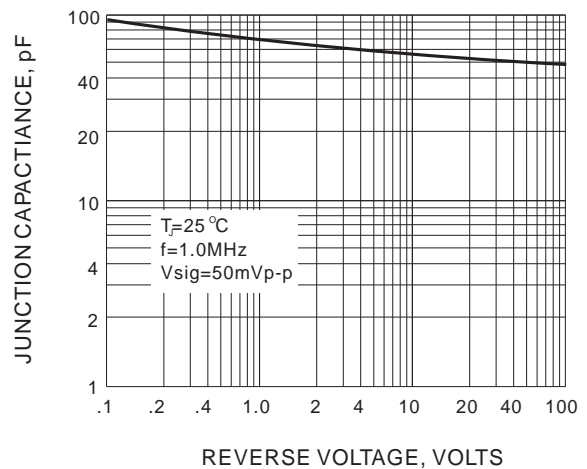
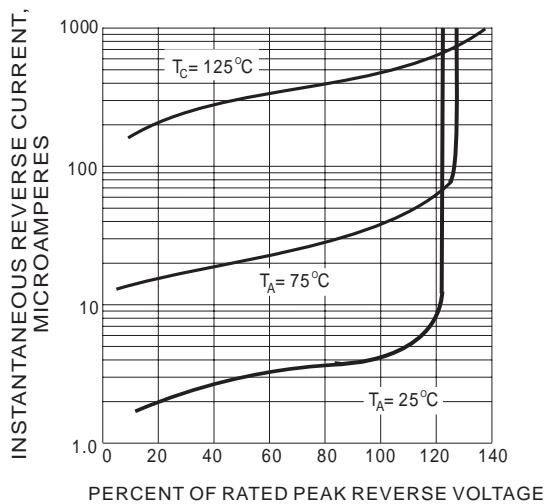


Fig. 6-TYPICAL JUNCTION CAPACITANCE