

**FAST RECOVERY**

**GLASS PASSIVATED RECTIFIER**

**VOLTAGE RANGE 50 to 1000 Volts CURRENT 8.0 Amperes**

**FEATURES**

- \* Fast switching
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge capability
- \* High reliability

**MECHANICAL DATA**

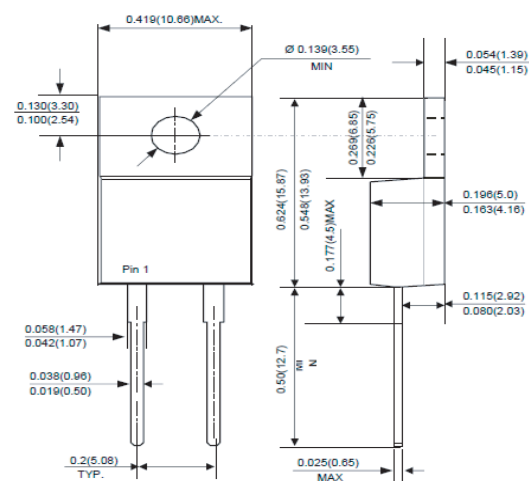
- \* Case: TO-220A molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any

**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%.



**TO-220A**



**MAXIMUM RATINGS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

RATINGS	SYMBOL	FR801	FR802	FR803	FR804	FR805	FR806	FR807	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_C = 75^\circ\text{C}$	$I_O$	8.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200							Amps
Typical Current Squared Time	$I^2T$	167							$\text{A}^2\text{S}$
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3							$^\circ\text{C/W}$
Typical Junction Capacitance (Note 2)	$C_J$	50							pF
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150							$^\circ\text{C}$

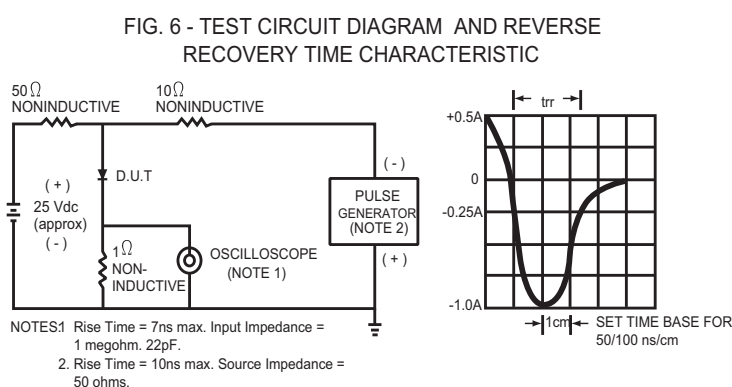
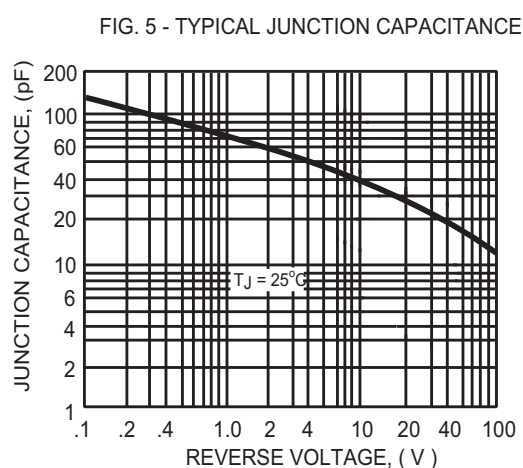
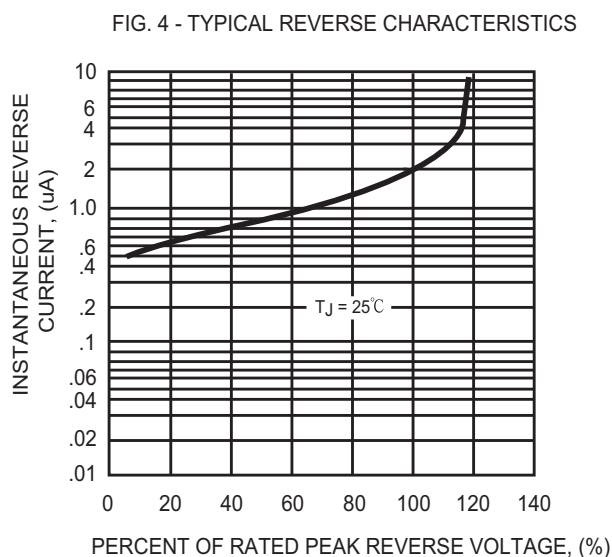
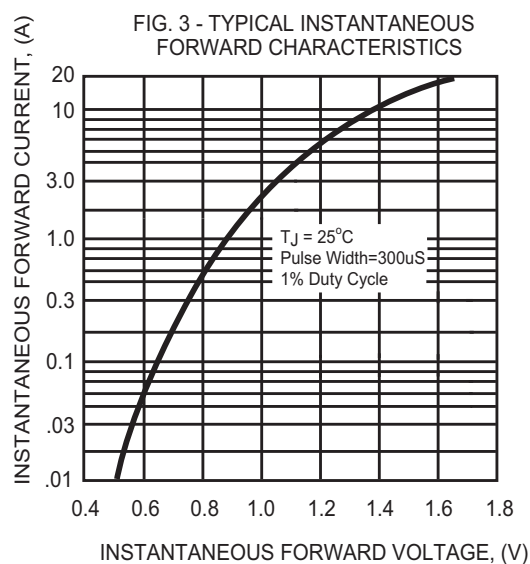
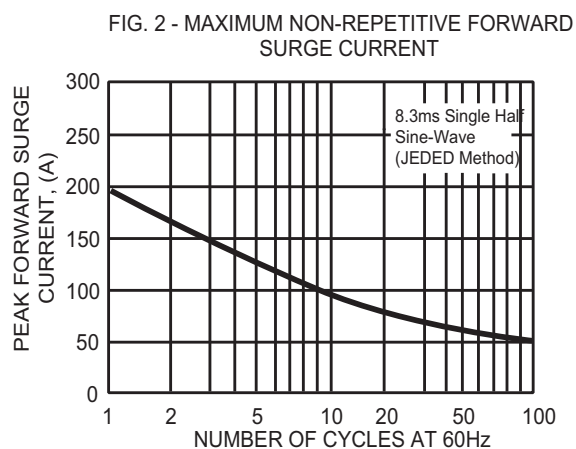
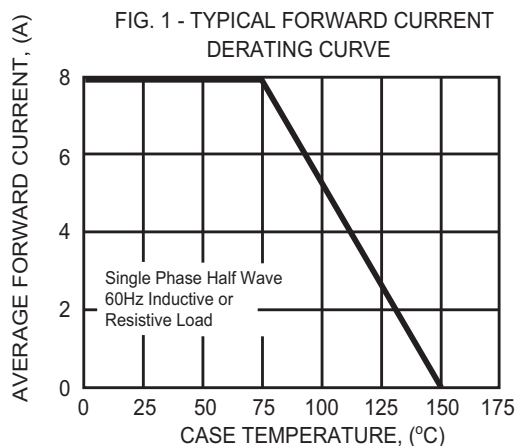
**ELECTRICAL CHARACTERISTICS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

CHARACTERISTICS	SYMBOL	FR801	FR802	FR803	FR804	FR805	FR806	FR807	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC	$V_F$	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A = 25^\circ\text{C}$	$I_R$	10							$\mu\text{Amps}$
Maximum Full Load Reverse Current Average, Full Cycle at $T_C = 100^\circ\text{C}$		150							$\mu\text{Amps}$
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	150				250		500	nSec

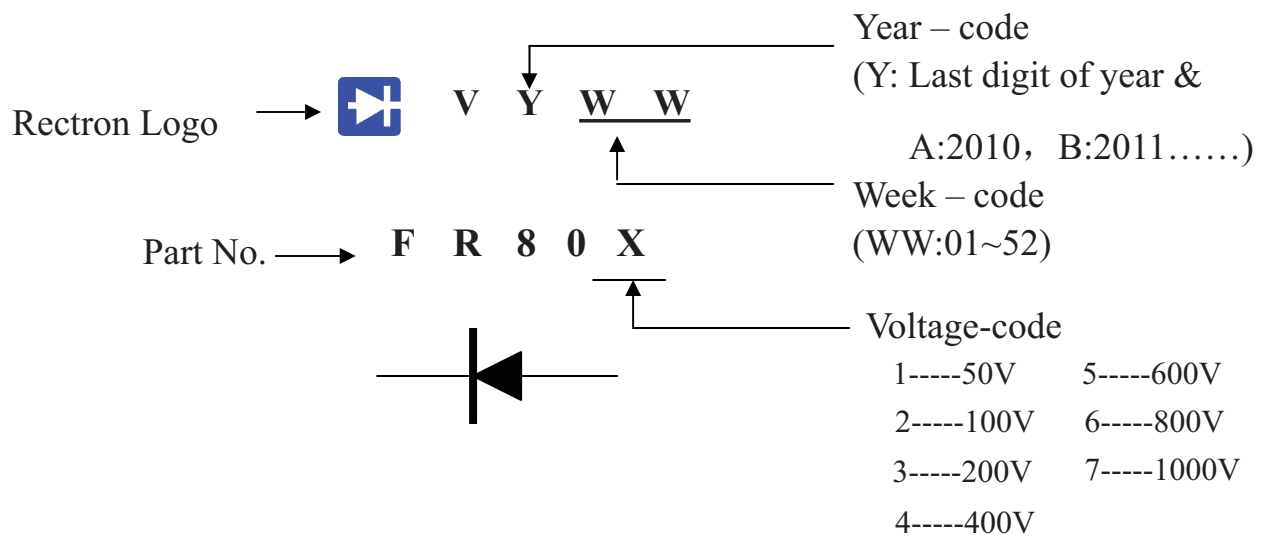
NOTES : 1. Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = -1.0\text{A}$ ,  $I_{RR} = -0.25\text{A}$   
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts  
3. Thermal Resistance Junction to Case.  
4. Suffix "R" for Reverse Polarity.

2016-08  
REV:A

## RATING AND CHARACTERISTIC CURVES( FR801 THRU FR807 )



## Marking Description



# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

## TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
TO-220(A)	-C	2,000	550*140*92	572*308*120	4,000	11.80

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