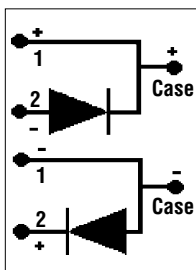
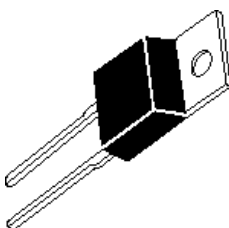
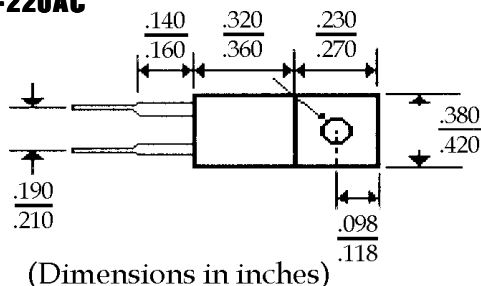


## Description

## 8.0 Amp FAST RECOVERY PLASTIC RECTIFIERS

### Mechanical Dimensions

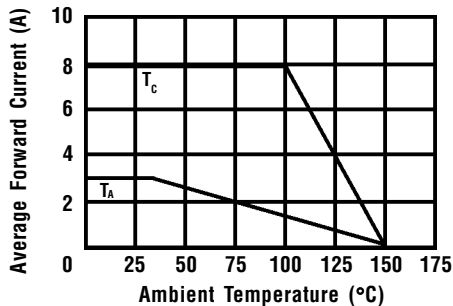
**JEDEC  
TO-220AC**


### Features

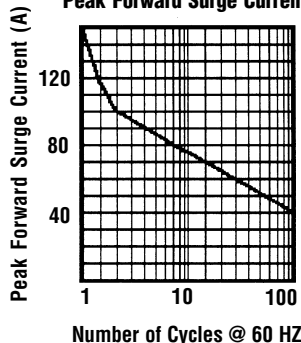
- FAST SWITCHING FOR HIGH EFFICIENCY
- HIGH SURGE CAPABILITY
- 8.0 AMP OPERATION @  $T_A = 55^\circ\text{C}$ , WITH NO THERMAL RUNAWAY
- MEETS UL SPECIFICATION 94V-0

FR80 . . . 810 Series								Units
Maximum Ratings	FR80	FR81	FR82	FR84	FR86	FR88	FR810	
Peak Repetitive Reverse Voltage... $V_{RRM}$	50	100	200	400	600	800	1000	Volts
RMS Reverse Voltage... $V_{R(rms)}$	35	70	140	280	420	560	700	Volts
DC Blocking Voltage... $V_{DC}$	50	100	200	400	600	800	1000	Volts
Average Forward Rectified Current... $I_{F(av)}$ $T_c = 100^{\circ}C$	8.0							Amps
Non-Repetitive Peak Forward Surge Current... $I_{FSM}$ @ Rated Current & Temp	150							Amps
Operating & Storage Temperature Range... $T_J, T_{STRG}$	-50 to 150							$^{\circ}C$
Electrical Characteristics								
Maximum Forward Voltage @ 8.0A... $V_F$	1.3							Volts
Maximum DC Reverse Current... $I_R$ @ Rated DC Blocking Voltage	10 250							$\mu$ Amps $\mu$ Amps
Typical Junction Capacitance... $C_j$ (Note 1)	55							pF
Maximum Reverse Recovery Time... $t_{RR}$	150	150	150	150	250	500	500	ns

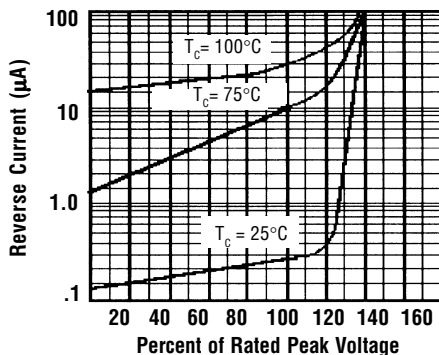
**Forward Current Derating Curve**



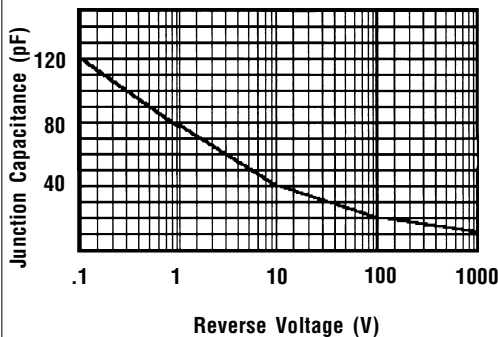
**Non-Repetitive  
Peak Forward Surge Current**



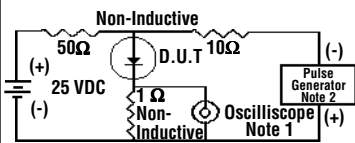
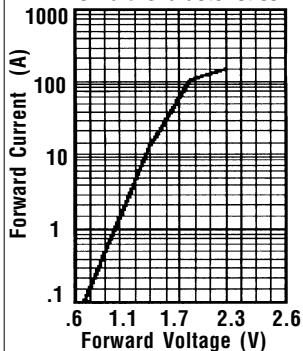
**Typical Reverse Characteristics**



**Typical Junction Capacitance**



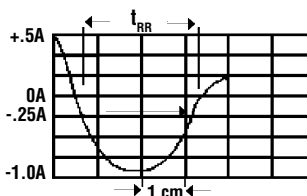
**Typical Instantaneous  
Forward Characteristics**



Notes:

1. Rise Time = 7 ns Max.  
Impedance = 1 megohm, 22 pF
2. Rise Time = 10 ns Max.  
Source Impedance = 50 Ohms

**Reverse Recovery  
Characteristics**



Time Base Set @ 50/100ns/cm

Ratings at  
25 Deg. C ambient  
temperature  
unless otherwise  
specified.

Single Phase Half  
Wave, 60 Hz  
Resistive or  
Inductive Load.

For Capacitive  
Load, Derate  
Current by 20%.

**NOTES:** 1. Measured @ 1 MHz and applied reverse voltage of 4.0V.  
2. Thermal Resistance Junction to Case, Jedec Method.