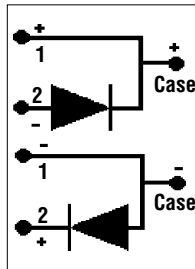
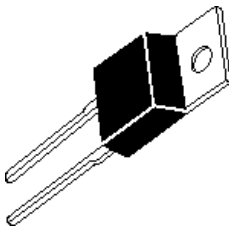


8.0 Amp FAST RECOVERY PLASTIC RECTIFIERS

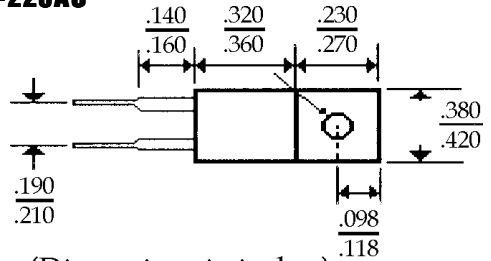
FR80 ... 810 Series

Description



Mechanical Dimensions

JEDEC
TO-220AC



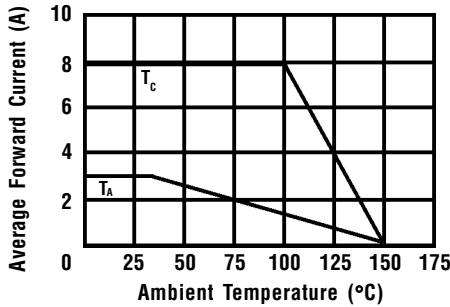
(Dimensions in inches)

Features

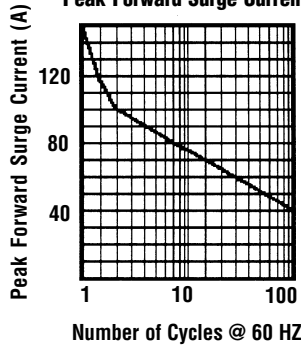
- FAST SWITCHING FOR HIGH EFFICIENCY
- HIGH SURGE CAPABILITY
- 8.0 AMP OPERATION @ $T_A = 55^\circ\text{C}$, WITH NO THERMAL RUNAWAY
- MEETS UL SPECIFICATION 94V-0

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... $I_{F(av)}$ $T_c = 100^\circ\text{C}$				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				$^\circ\text{C}$
Electrical Characteristics								
Maximum Forward Voltage @ 8.0A... V_F				1.3				Volts
Maximum DC Reverse Current... I_R @ Rated DC Blocking Voltage				10				μAmps
				250				μAmps
Typical Junction Capacitance... C_j (Note 1)				55				pF
Maximum Reverse Recovery Time... t_{RR}	150	150	150	150	250	500	500	ns

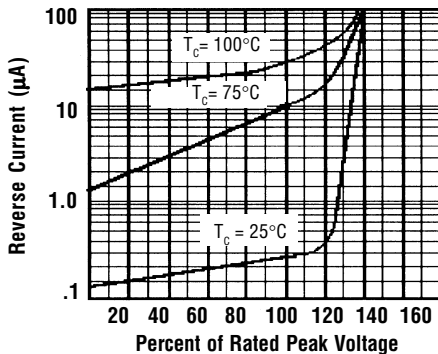
Forward Current Derating Curve



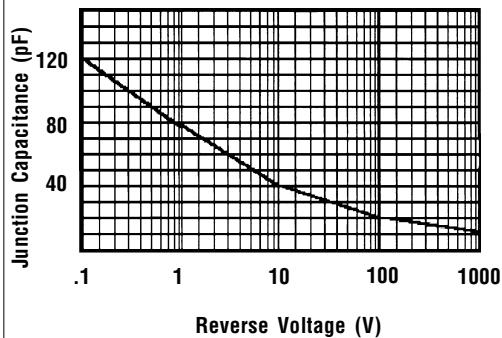
Non-Repetitive Peak Forward Surge Current



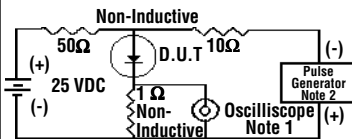
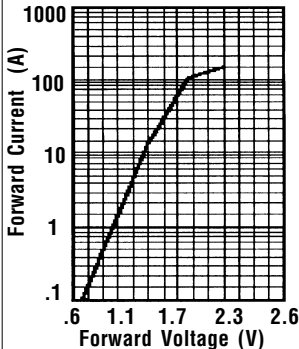
Typical Reverse Characteristics



Typical Junction Capacitance



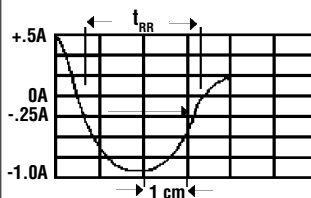
Typical Instantaneous Forward Characteristics



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.