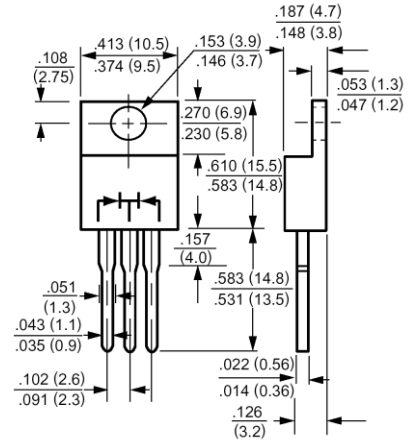
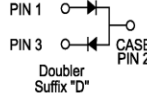
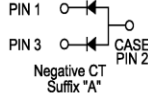
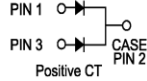
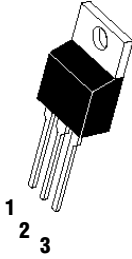




Description

Mechanical Dimensions

FR16C05~100



Features

Low Forward Voltage Drop

High Current Capability

High Capability

High Surge Current Capability

Mechanical Data

Case: Molded Plastic, TO-220AB

Epoxy: UL94V-0 rate Flame Retardant

Terminals: Leads Solderable per MIL-STD-202 method 208

Weight: 0.08ounce(2.24g)

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	FR16C05	FR16C10	FR16C20	FR16C40	FR16C60	FR16C80	FR16C100	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 See Fig. 2	$I_{(AV)}$	16.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150							Amp
Maximum Forward Voltage at 8.0A DC and 25 °C	V_F	1.3							Volts
Maximum Reverse Current at Rated DC Blocking Voltage	I_R	5.0 100							uAmp
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	3							/W
Maximum Reverse Recovery Time (Note 2)	T_{RR}	150			250		500		nS
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +150							

NOTES:

1- Thermal Resistance from Junction to Case per Leg Mounted on Heatsink.

2- Reverse Recovery Test Conditions : $I_F = .5A$, $I_R = 1A$, $I_{RR} = .25A$.

RATINGS AND CHARACTERISTIC CURVES

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

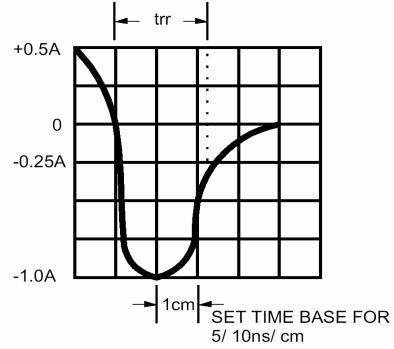
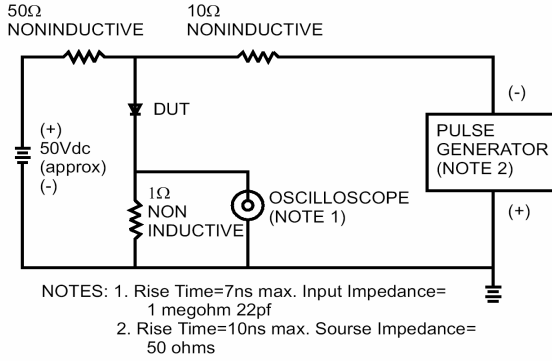


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

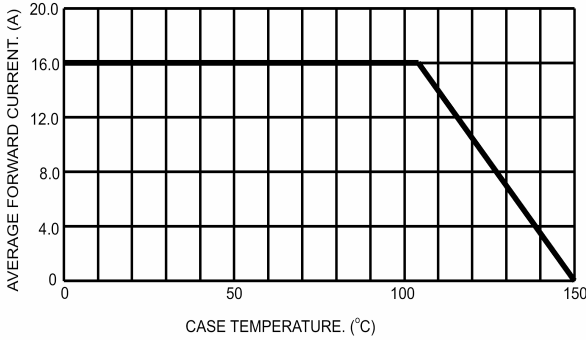


FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

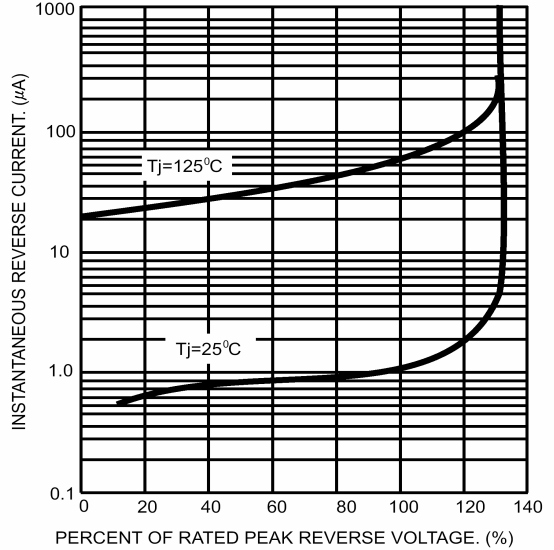


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

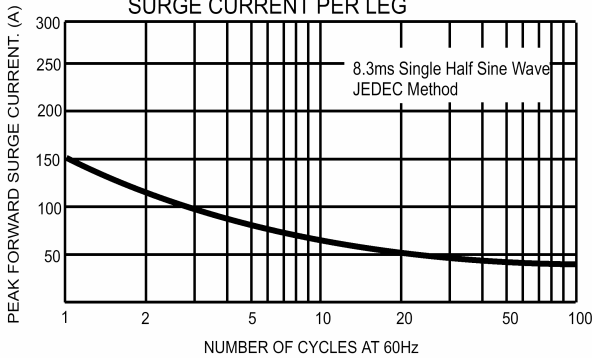


FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

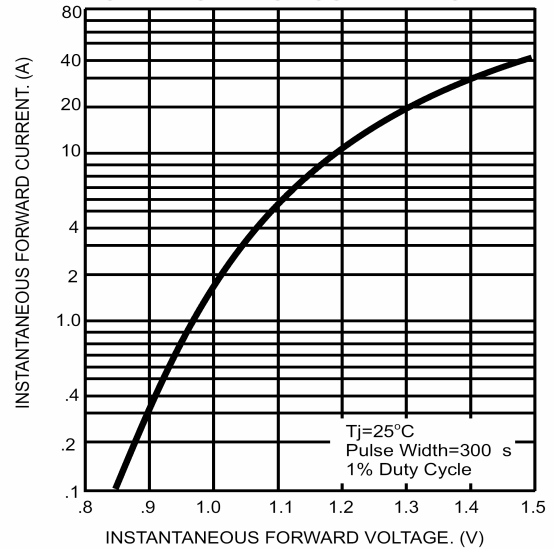


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

