FR1601 THRU FR1607

GLASS PASSIVATED FAST RECOVERY RECTIFIER

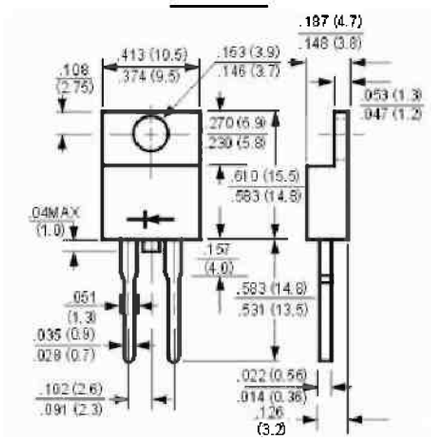
REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **16.0 AMPERE**

FEATURES

- Low forward voltage drop
- High current capability
- High capability
- High surge current capability

TO-220A



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, TO-220A

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed

Polarity: As marked

Mounting position: Any

Weight: 0.08ounce, 2.2-1gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	Symbols	*FR1601*	*FR1602*	*FR1603*	*FR1604*	*FR1605*	*FR1606*	*FR1607*	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}	250							**Amp**
Maximum Forward Voltage at 16.0A DC and 25℃	V_F	1.3							**Volts**
Maximum Reverse Current at T_C=25℃ / **at Rated DC Blocking Voltage T_C=125℃**	I_R	10.0 / 100							**uAmp**
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	2.5							℃/W
Maximum Reverse Recovery Time (Note 2)	T_{RR}	150				250	500		**nS**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							℃

NOTES:

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

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

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RATINGS AND CHARACTERISTIC CURVES

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

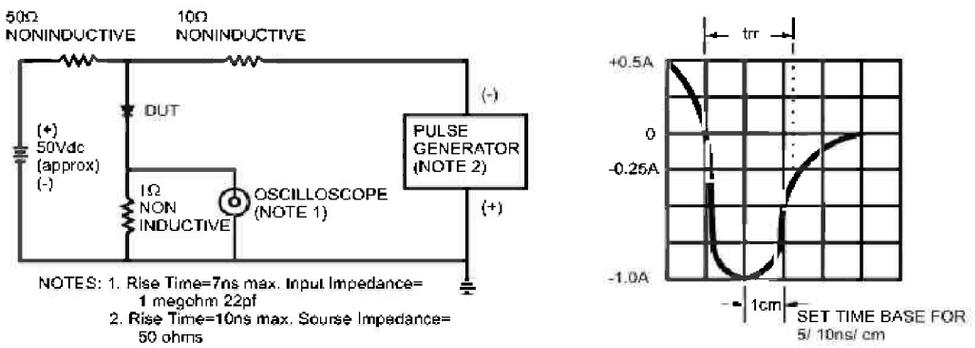

FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

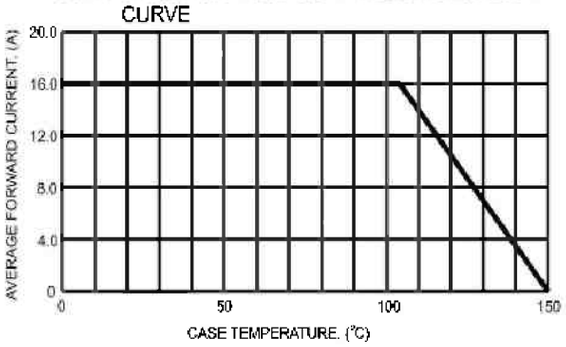

FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

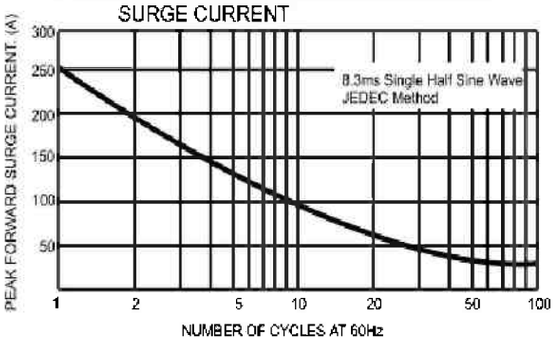

FIG.4- TYPICAL JUNCTION CAPACITANCE

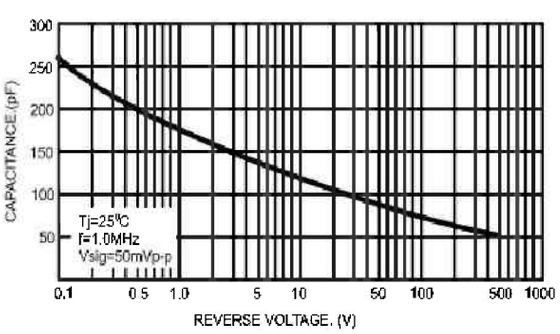

FIG.5- TYPICAL REVERSE CHARACTERISTICS

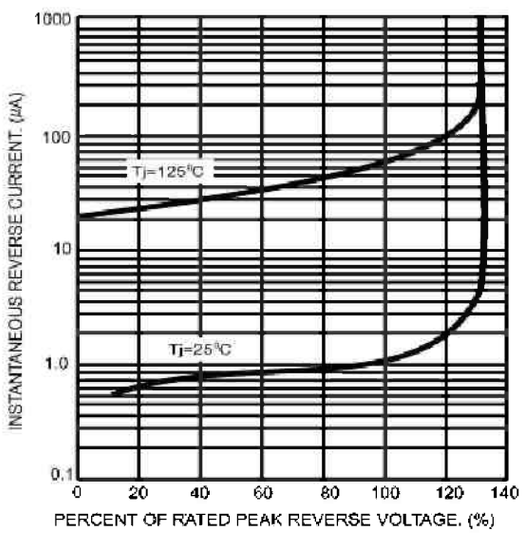

FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS