

## Ultrafast Rectifier - 8Amp 600Volt

**Features**

- Epoxy Meets UL 94V-0
- High Voltage Capability
- Low Leakage Current
- High Temperature Glass Passivated Junction
- Pb-Free Packages is Available

**Mechanical Characteristics**

- Case: Epoxy, Molded
- Weight: 1.9 grams(Approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260 °C Max for 10 Seconds

**Maximum ratings**

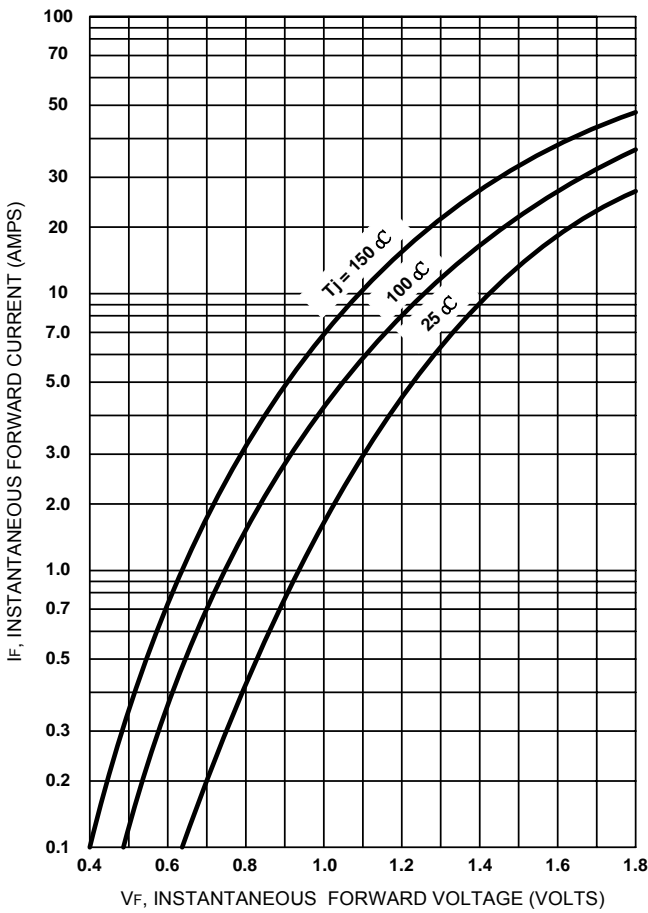
Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	VRRM	600	V
Average Rectified Forward Current Total Device(Rated VR), Tc = 150 °C	IF(AV)	8	A
Peak Repetitive Forward Current (Rated VR, Square Wave, 20kHz), Tc = 150 °C	IFM	16	A
Nonrepetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60Hz)	IFSM	100	A
Operating Junction Temperature and Storage Temperature Range	TJ, Tstg	-65 to +175	°C

**Electrical characteristics**

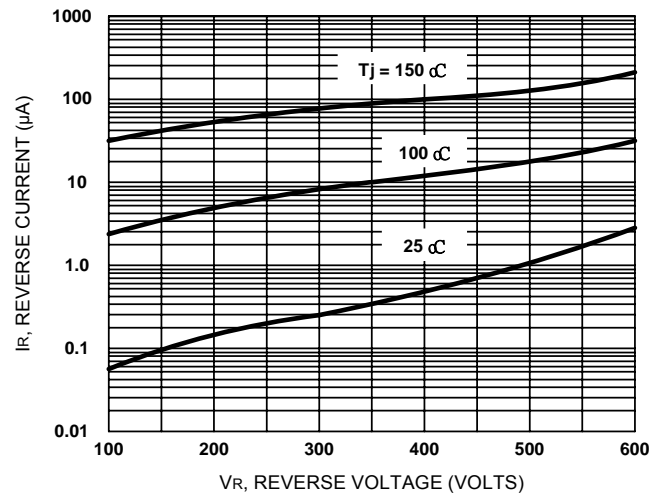
Rating	Symbol	Value	Unit
Maximum Instantaneous Forward Voltage (Note 1) IF = 8.0A, TC = 150 °C IF = 8.0A, TC = 25 °C	VF	1.2 1.5	V
Maximum Instantaneous Reverse Current (Note 1) Rated DC Voltage, TJ = 150 °C Rated DC Voltage, TJ = 25 °C	IR	500 10	µA
Maximum Reverse Recovery Time IF = 1.0A, di/dt = 50A/µs IF = 0.5A, IR = 1.0A, IREC = 0.25A	trr	60 50	ns
Maximum Thermal Resistance, Junction-to-Case	ReJC	2.0	°C/W

Note: 1.Pulse Test : Pulse Width = 300µs, Duty Cycle ≤ 2.0%

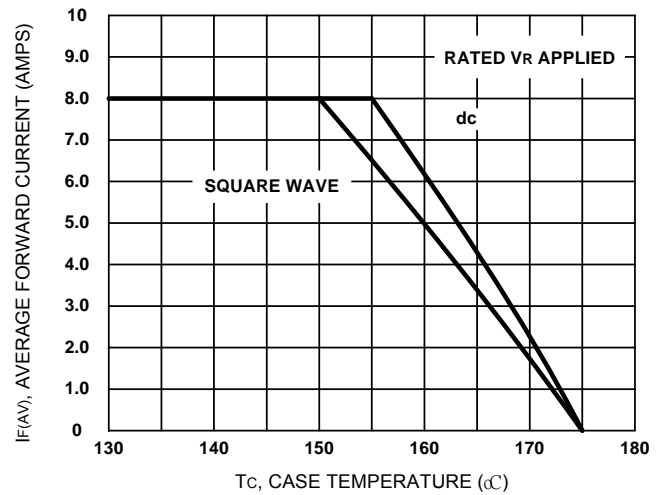
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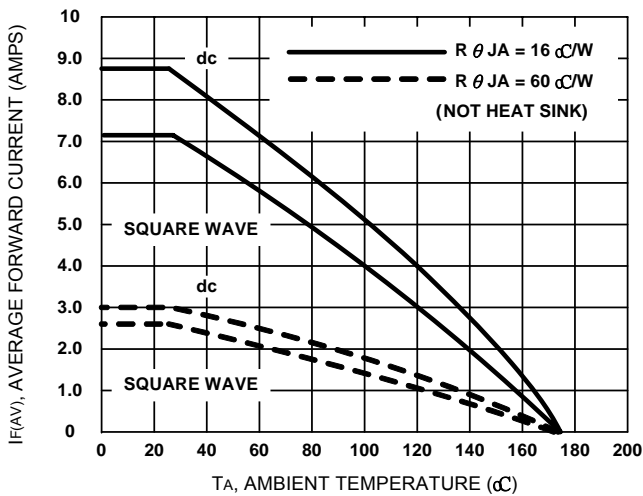
**Figure 1. Typical Forward Voltage**



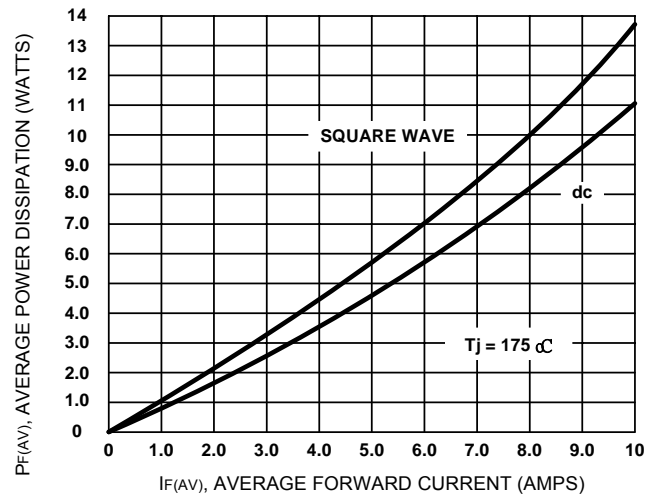
**Figure 2. Typical Reverse Current**



**Figure 3. Current Derating, Case**



**Figure 4. Current Derating, Ambient**



**Figure 5. Power Dissipation**

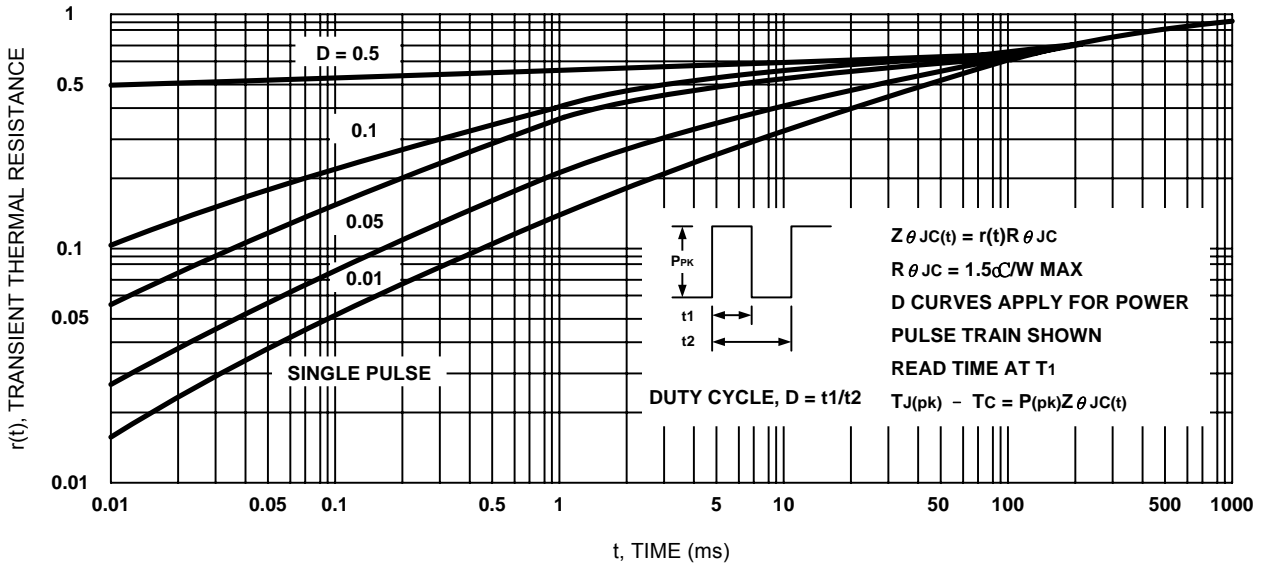


Figure 6. Thermal Response

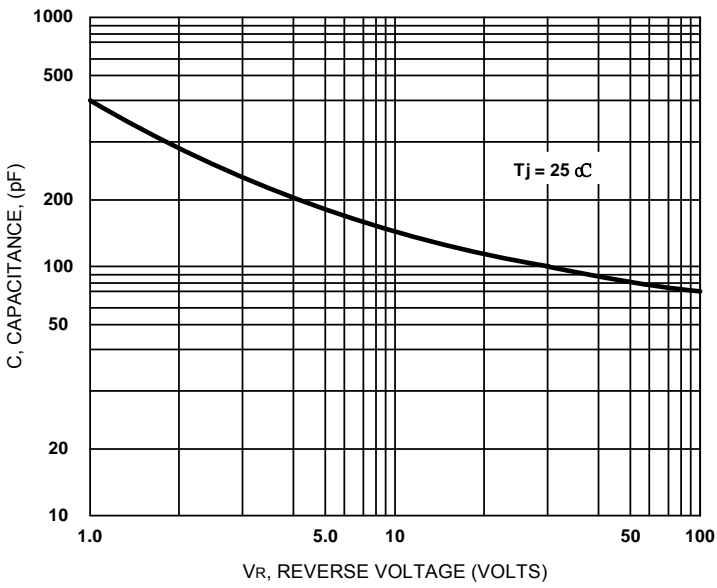
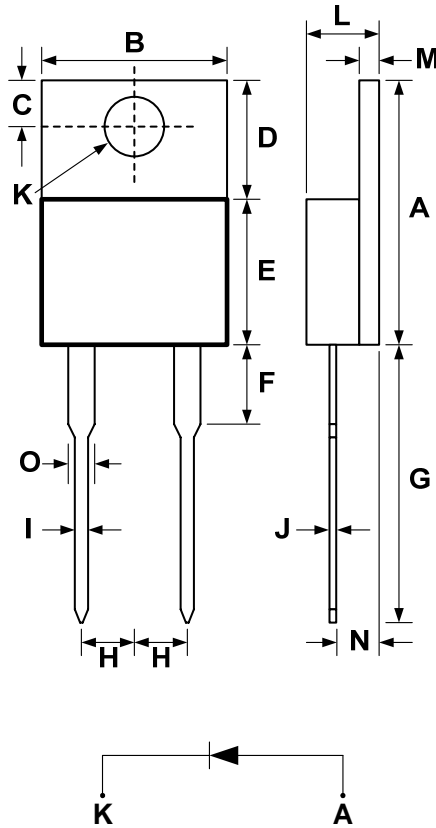


Figure 7. Typical Capacitance

**TO-220AC PACKAGE**



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.579	.602	14.70	15.30	
B	.392	.411	9.95	10.45	
C	.104	.116	2.65	2.95	
D	.248	.264	6.30	6.70	
E	.325	.344	8.25	8.75	
F	.126	.138	3.20	3.50	
G	.524	.547	13.30	13.90	
H	.096	.108	2.45	2.75	
I	.030	.035	0.75	0.90	
J	.013	.020	0.35	0.50	
K	.146	.157	3.70	4.00	
L	.171	.187	4.35	4.75	
M	.049	.057	1.25	1.45	
N	.102	.114	2.60	2.90	
O	.047	.055	1.20	1.40	