SIRECT
ELECTRONIC

MUR860T

Ultrafast Rectifier - 8Amp 600Volt

Features

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

Mechanical Characteristics

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

Maximum ratings

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
Average Rectified Forward Current Total Device(Rated V_R), T_C = 150 ºC	$I_{F(AV)}$	8	A
Peak Repetitive Forward Current (Rated V_R, Square Wave, 20kHz), T_C = 150 ºC	I_{FM}	16	A
Nonrepetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60Hz)	I_{FSM}	100	A
Operating Junction Temperature and Storage Temperature Range	T_J, T_{stg}	-65 to +175	ºC

Electrical characteristics

Rating	Symbol	Value	Unit
Maximum Instantaneous Forward Voltage (Note 1) IF = 8.0A, TC = 150 ºC IF = 8.0A, TC = 25 ºC	V_F	 1.2 1.5	V
Maximum Instantaneous Reverse Current (Note 1) Rated DC Voltage, T_J = 150 ºC Rated DC Voltage, T_J = 25 ºC	I_R	 500 10	μA
Maximum Reverse Recovery Time I_F = 1.0A, di/dt = 50A/μs	trr	25	ns
Maximum Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	2.0	ºC/W

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

August 2007 / Rev.5

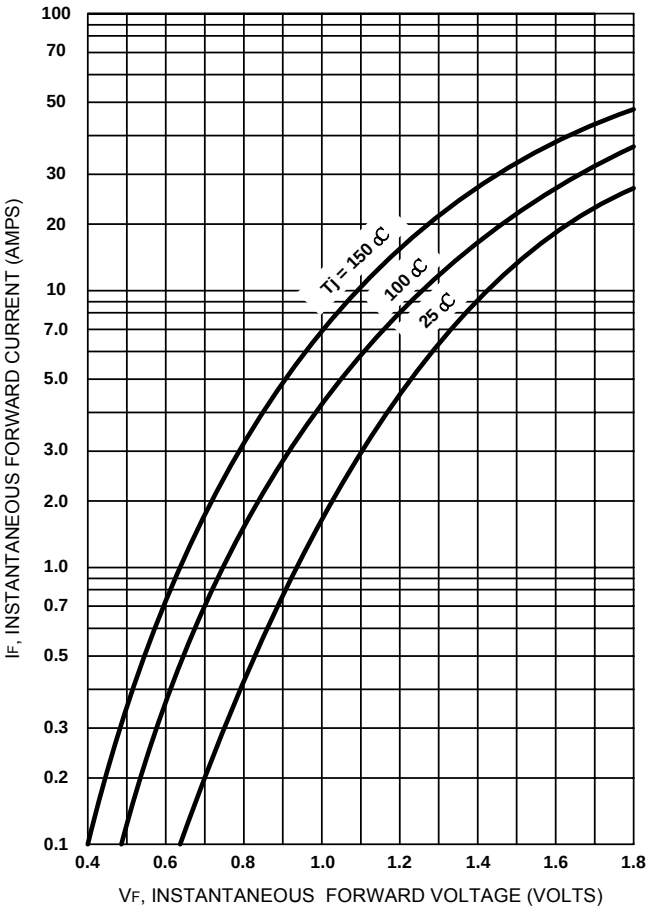


Figure 1. Typical Forward Voltage

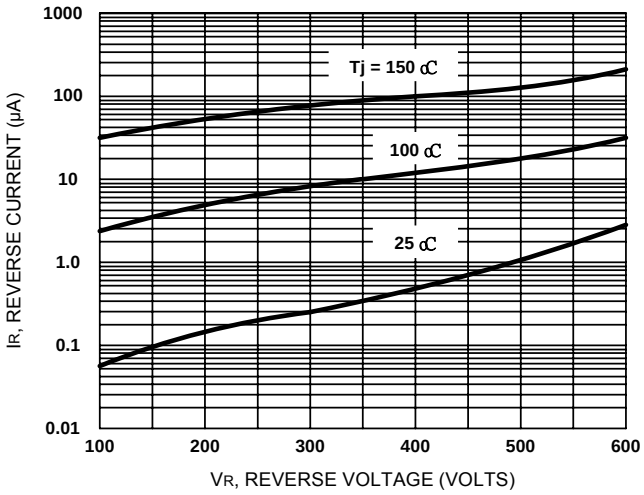


Figure 2. Typical Reverse Current

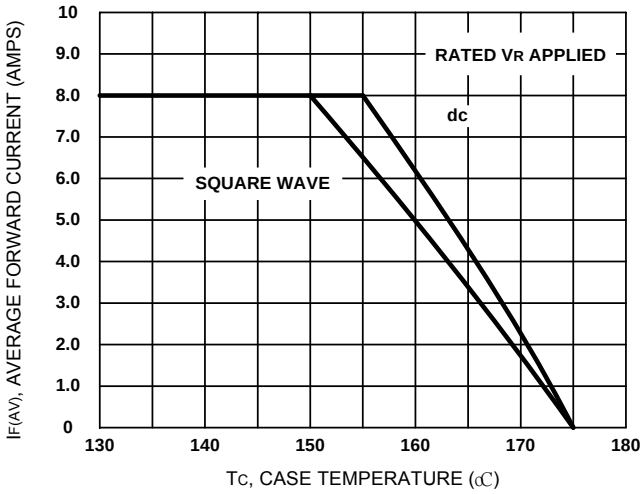


Figure 3. Current Derating, Case

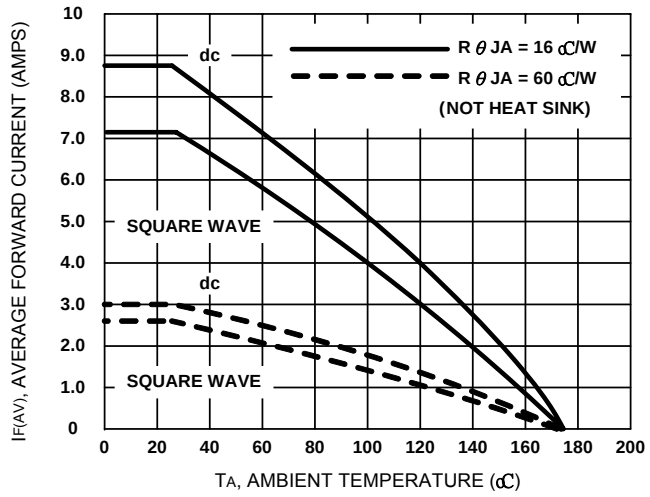


Figure 4. Current Derating, Ambient

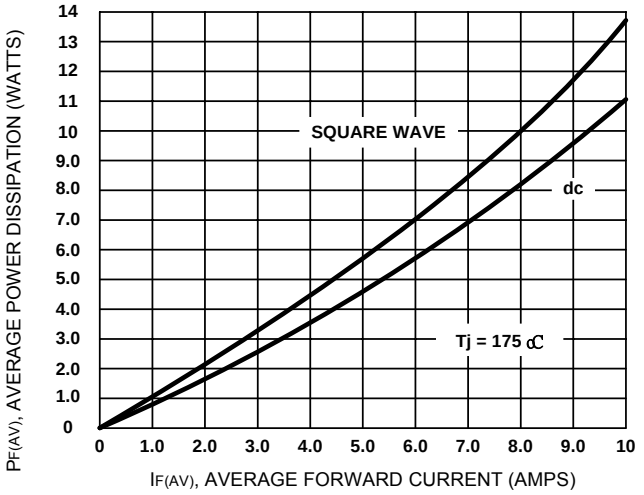


Figure 5. Power Dissipation

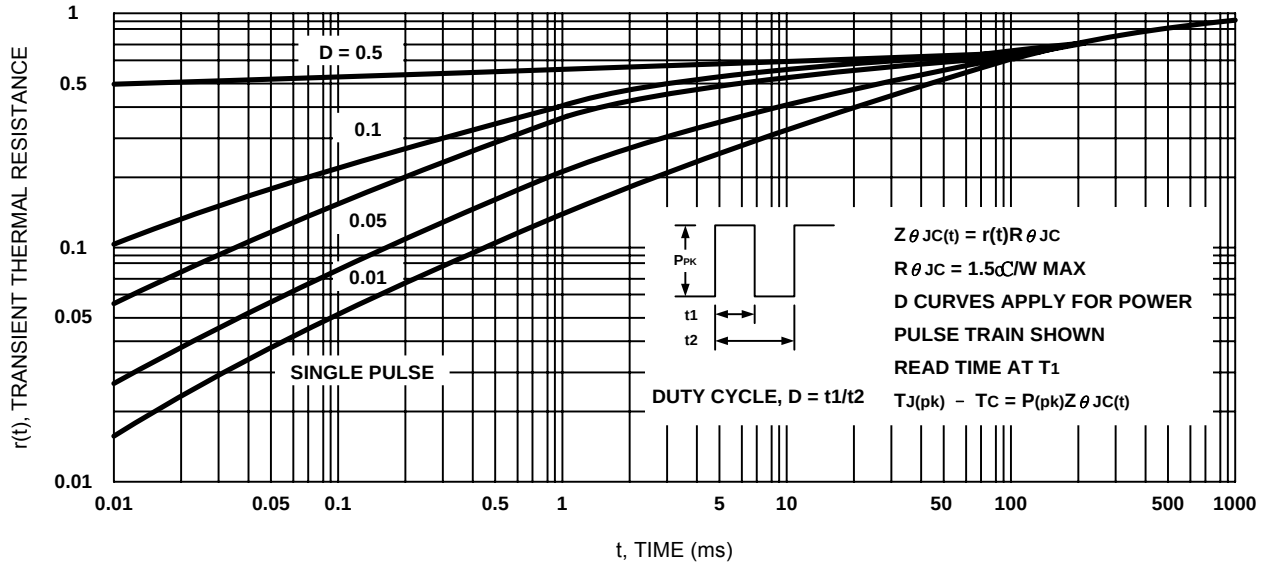


Figure 6. Thermal Response

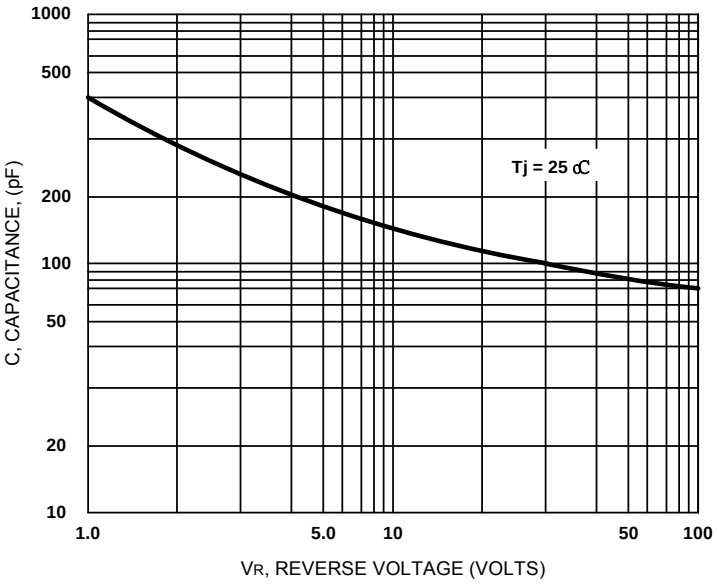
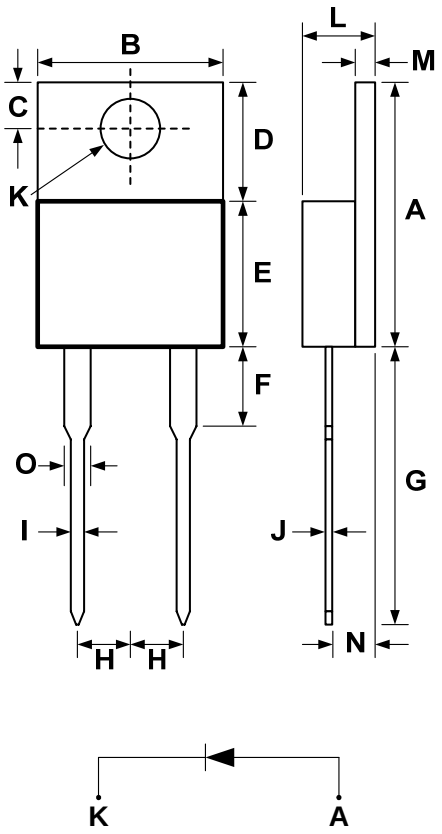


Figure 7. Typical Capacitance

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	