

**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

**Applications**

- Switching Power Supplies
- Power Switching Circuits

**Maximum ratings**

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	600	V
Average Rectified Forward Current Total Device(Rated V <sub>R</sub> ), T <sub>c</sub> = 150 °C	I <sub>F(AV)</sub>	8	A
Peak Repetitive Forward Current (Rated V <sub>R</sub> , Square Wave, 20kHz), T <sub>c</sub> = 150 °C	I <sub>FM</sub>	8	A
Nonrepetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60Hz)	I <sub>FSM</sub>	100	A
Avalanche Energy	E <sub>AVL</sub>	10	mJ
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-65 to +175	°C

**Electrical characteristics**

Rating	Symbol	Value	Unit
Maximum Instantaneous Forward Voltage (Note 1) I <sub>F</sub> = 8.0A, T <sub>C</sub> = 125 °C I <sub>F</sub> = 8.0A, T <sub>C</sub> = 25 °C	V <sub>F</sub>	1.35 1.85	V
Maximum Instantaneous Reverse Current (Note 1) Rated DC Voltage, T <sub>J</sub> = 125 °C Rated DC Voltage, T <sub>J</sub> = 25 °C	I <sub>R</sub>	400 30	μA
Maximum Reverse Recovery Time I <sub>F</sub> = 1.0A, di/dt = 50A/μs	t <sub>rr</sub>	25	ns
Maximum Thermal Resistance, Junction-to-Case	R <sub>θJC</sub>	2.0	°C/W

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

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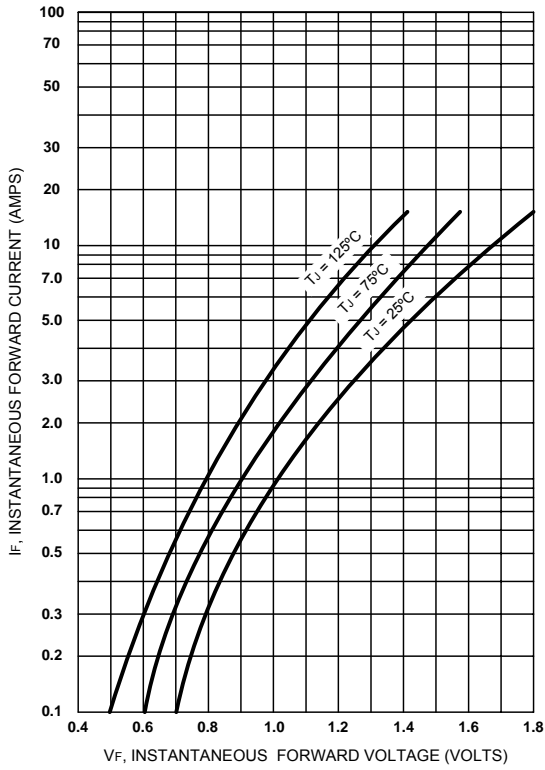


Figure 1. Typical Forward Voltage

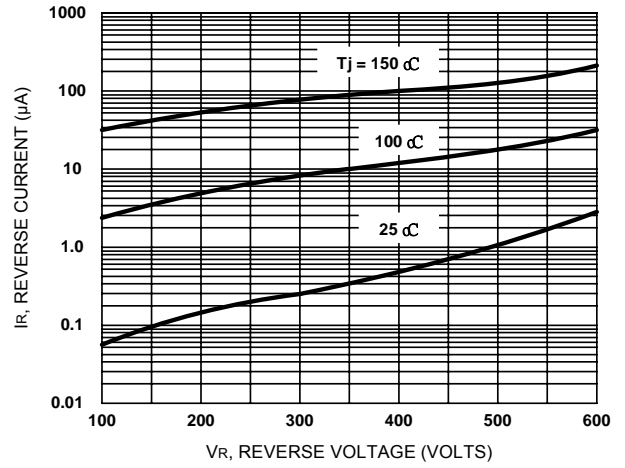


Figure 2. Typical Reverse Current

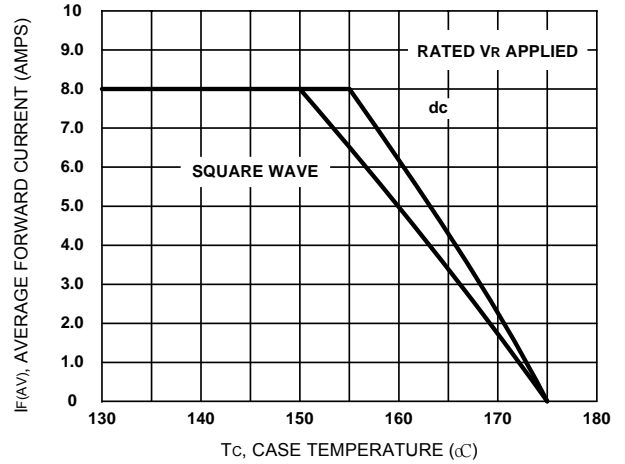


Figure 3. Current Derating, Case

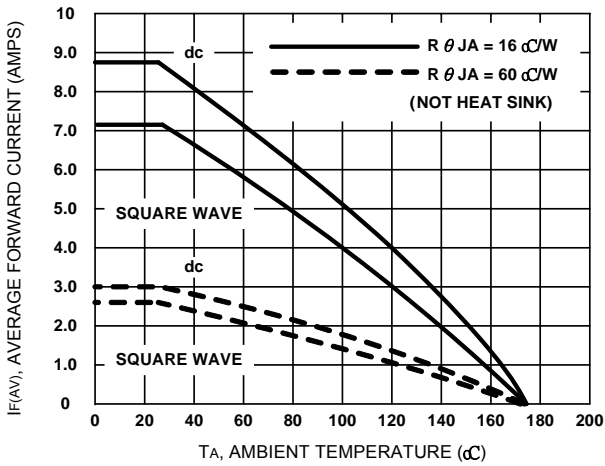


Figure 4. Current Derating, Ambient

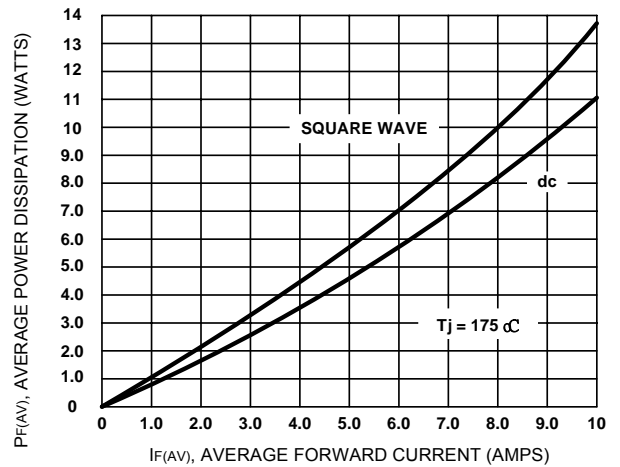
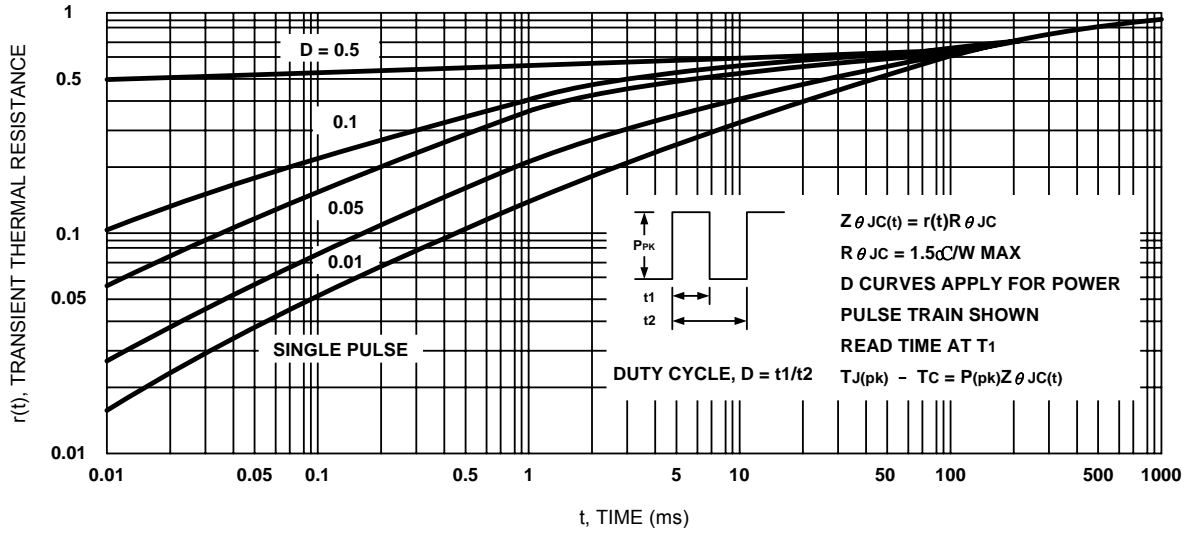
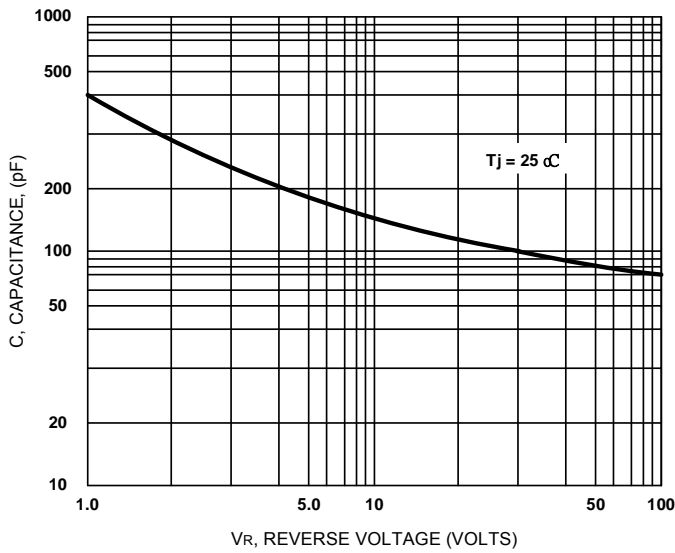


Figure 5. Power Dissipation



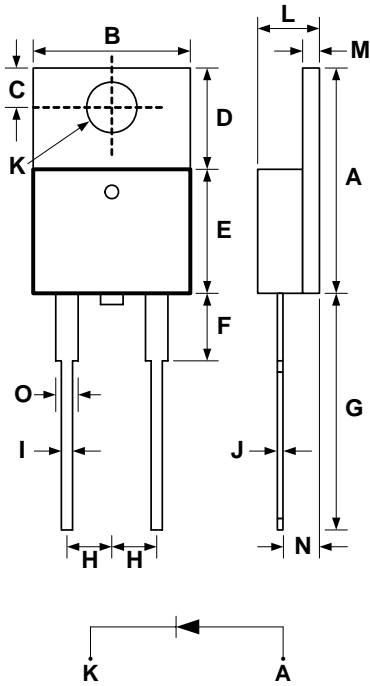
**Figure 6. Thermal Response**



**Figure 7. Typical Capacitance**

**MUR860TH**

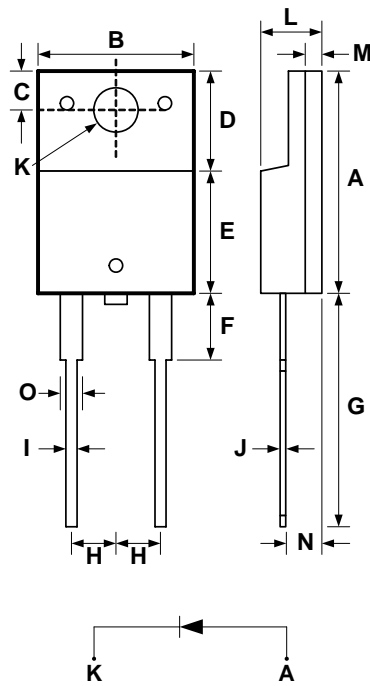
**T0-220AC**



DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.579	.606	14.70	15.40	
B	.392	.411	9.95	10.45	
C	.104	.116	2.65	2.95	
D	.248	.272	6.30	6.90	
E	.325	.350	8.25	8.90	
F	.126	.157	3.20	4.00	
G	.492	.551	12.50	14.00	
H	.096	.108	2.45	2.75	
I	.028	.039	0.70	1.00	
J	.010	.022	0.25	0.55	
K	.146	.157	3.70	4.00	
L	.167	.187	4.25	4.75	
M	.045	.057	1.15	1.45	
N	.089	.114	2.25	2.90	
O	.047	.055	1.20	1.40	

**MUR860TFH**

**ITO-220AC**



DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.577	.640	14.65	16.25	
B	.386	.406	9.80	10.30	
C	.098	.114	2.50	2.90	
D	.258	.274	6.55	6.95	
E	.315	.331	8.00	8.40	
F	.079	.161	2.00	4.10	
G	.492	.571	12.50	14.50	
H	.089	.106	2.25	2.70	
I	.024	.035	0.60	0.90	
J	.020	.028	0.50	0.70	
K	.120	.138	3.05	3.50	
L	.169	.189	4.30	4.80	
M	.031	.063	0.80	1.60	
N	.079	.112	2.00	2.85	
O	.043	.055	1.10	1.40	