

### FEATURE

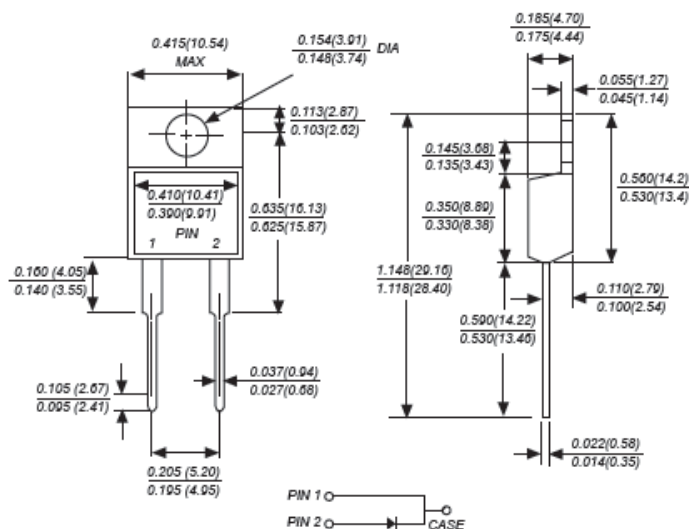
- Superfast switching time for high efficiency
- Low reverse leakage current
- High surge capacity

### Mechanical Data

- Case: TO-220AC full molded plastic package
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Polarity: As marked
- Standard packaging: Any
- Weight: 0.08 ounces, 2.24 grams

### SUPER FAST RECTIFIER

#### TO-220AC



### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	MUR805	MUR810	MUR820	MUR840	MUR860	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	V
Maximum average forward rectified current at $T_a = 120^\circ\text{C}$	$I_{F(AV)}$	8.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100.0					Amps
Maximum instantaneous forward voltage at .0A per element	$V_F$	0.975		1.3		1.5	V
Maximum DC reverse current @ $T_J = 25^\circ\text{C}$	$I_R$	10.0					uA
at rated DC blocking voltage @ $T_J = 100^\circ\text{C}$		500					
Maximum reverse recovery time at $I_F = 0.5\text{A}$ , $I_R = 1.0\text{A}$ , $I_{rr} = 0.25\text{A}$	$t_{rr}$	30		50			nS
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150					$^\circ\text{C}$

Notes: 1. Pulse test: Pulse width 300 usec, Duty cycle 2%

### RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

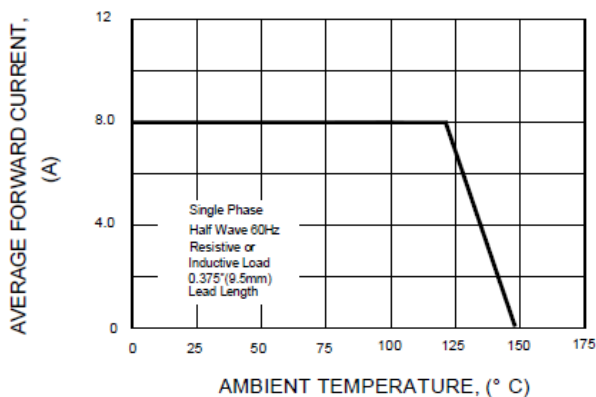


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

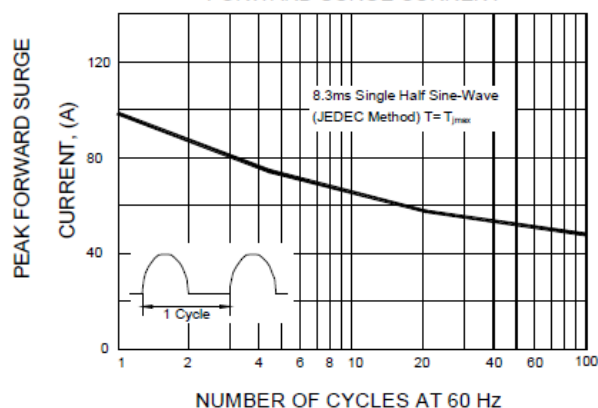


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

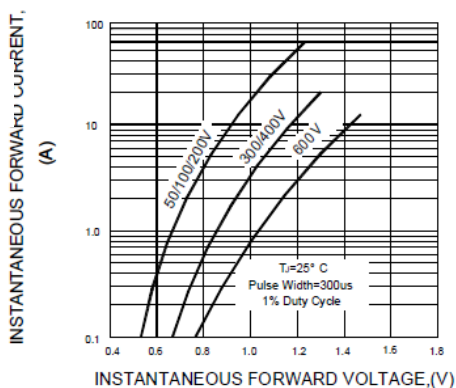


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG

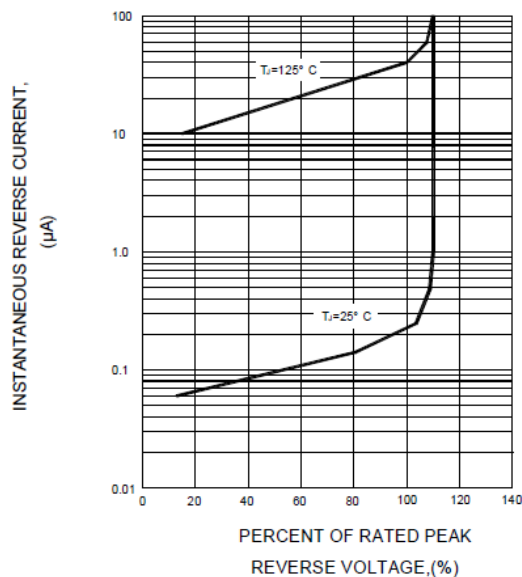


FIG.5-TYPICAL JUNCTION CAPACITANCE

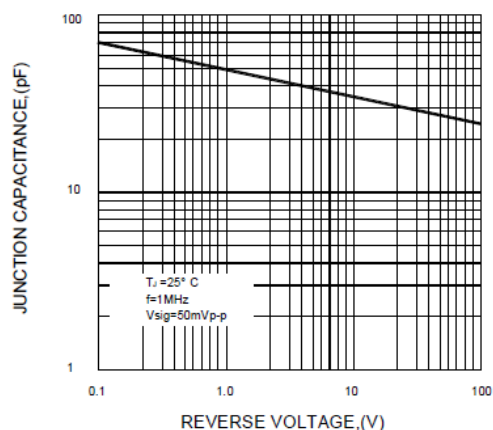
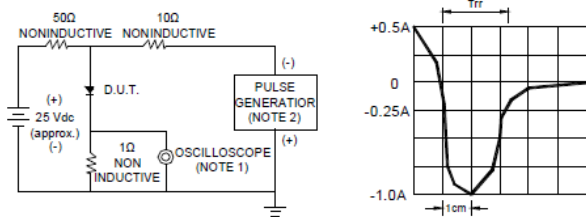


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1. Rise Time=7ns max. Input Impedance= 1 magohm. 22pF  
2. Rise time=10ns max. Source Impedance= 50 ohms

SET TIME BASE FOR 50/100ns/cm