

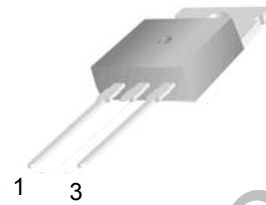


## MUR805 – MUR860

## Features:

- High surge capacity
- Low Forward Voltage Drop.
- High Current Capability.
- Super Fast Switching Speed For High Efficiency

TO-220 -2L



1. Cathode 3. Anode

## Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	MUR 805	MUR 810	MUR 815	MUR 820	MUR 830	MUR 840	MUR 860	Unit
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	$V_{R(DC)}$	50	100	150	200	300	400	600	V
Average Rectified Forward Current Total Device, (Rated $V_R$ ), $T_C = 150^\circ\text{C}$	$I_{F(AV)}$	8							A
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half wave, single phase, 60 Hz)	$I_{FSM}$	100							A
Operating Junction Temperature and Storage Temperature	$T_J, T_{stg}$	-65 to +175							$^\circ\text{C}$
Maximum Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	3.0				2.0			$^\circ\text{C/W}$

## ELECTRICAL CHARACTERISTICS

Parameter	Symbol	MUR 805	MUR 810	MUR 815	MUR 820	MUR 830	MUR 840	MUR 860	Unit
Forward Voltage (Note 1) ( $I_F = 4\text{A}, T_j = 25^\circ\text{C}$ ) ( $I_F = 4\text{A}, T_j = 150^\circ\text{C}$ )	$V_F$	0.975 0.895			1.30 1.00		1.50 1.20		V
Maximum Instantaneous Reverse Current (Note 1) (Rated DC Voltage, $T_j = 25^\circ\text{C}$ ) (Rated DC Voltage, $T_j = 150^\circ\text{C}$ )	$I_R$	5 250			10 500				$\mu\text{A}$
Maximum Reverse Recovery Time ( $I_F = 1.0\text{A}, di/dt = 50\text{A}/\mu\text{s}$ ) ( $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{REC} = 0.25\text{A}$ )	$T_{RR}$	35 25			60 50				ns

Note 1. Pulse Test: Pulse Width = 300  $\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$

Typical Characteristics

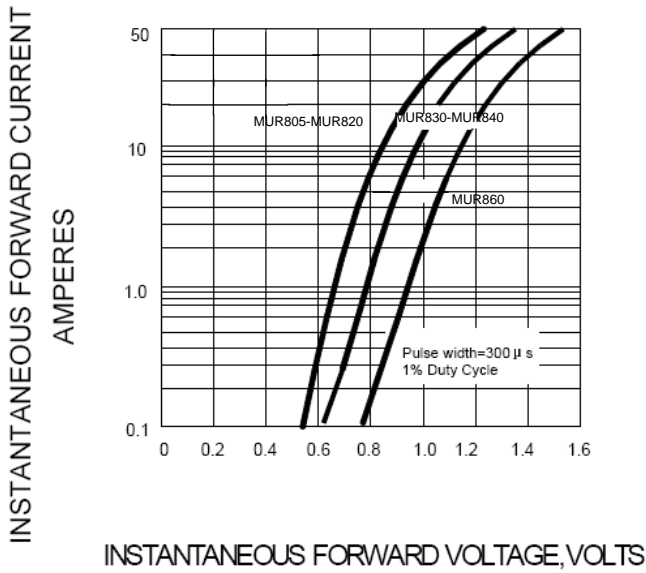


FIG.3 – PEAK FORWARD SURGE CURRENT

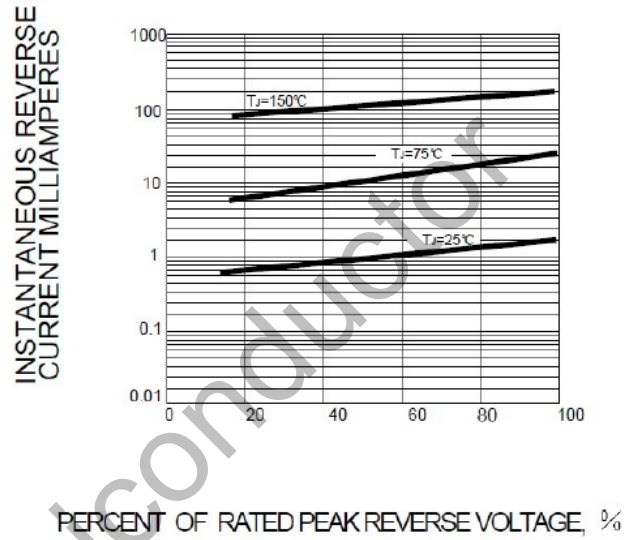
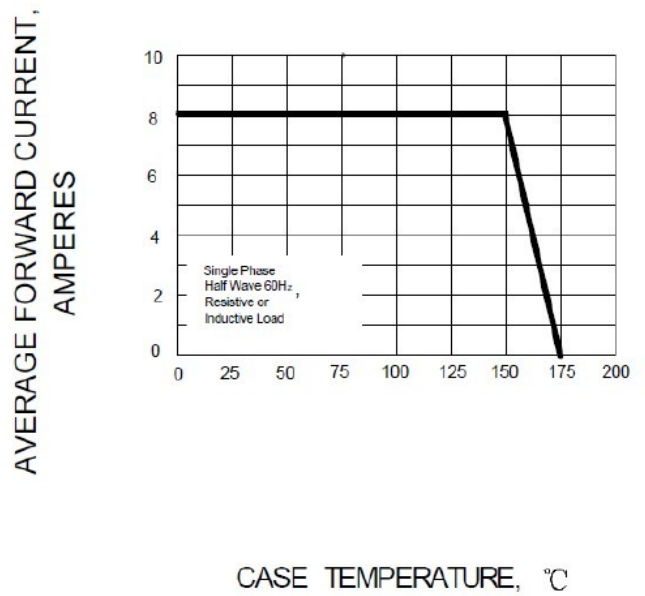
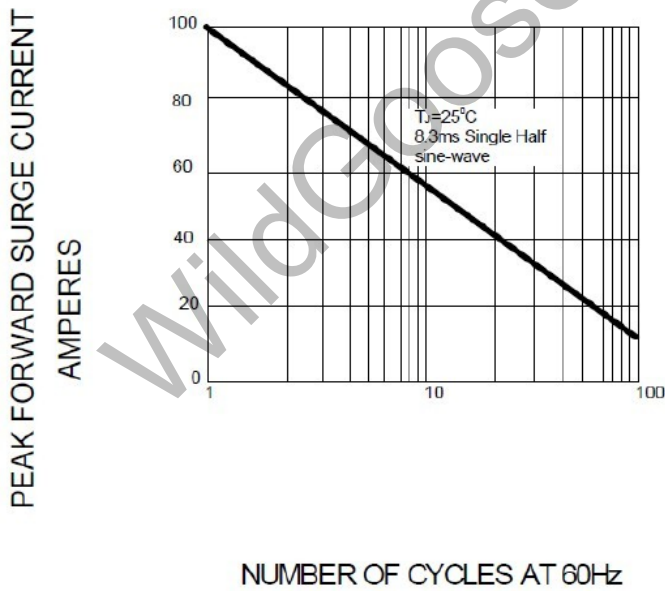


FIG.4 – FORWARD DERATING CURVE



Package Dimension

TO-220 -2L

Unit: mm

