

MUR1005 - MUR1060

10 Amps Super Fast Recovery

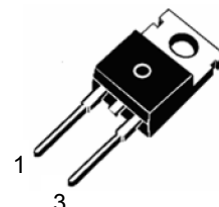


MUR1005 - MUR1060

Features:

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

TO-220 -2L



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

Parameter	Symbol	MUR 1005	MUR 1010	MUR 1015	MUR 1020	MUR 1030	MUR 1040	MUR 1060	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), $T_j = 150^\circ\text{C}$	$I_{F(AV)}$	10							A
Nonrepetitive Peak Surge Current(Surge applied at rated load conditions half wave, single phase, 60 Hz)	I_{FSM}	130							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 1005	MUR 1010	MUR 1015	MUR 1020	MUR 1030	MUR 1040	MUR 1060	Unit
Forward Voltage ($I_F = 5A$, $T_j = 25^{\circ}C$) (Note 1) ($I_F = 5A$, $T_j = 150^{\circ}C$)	V_F	0.975 0.895				1.30 1.00	1.50 1.20		V
Maximum Instantaneous Reverse Current (Note 1) (Rated DC Voltage, $T_j = 25^{\circ}C$) (Rated DC Voltage, $T_j = 150^{\circ}C$)	I_R	5 250				10 500			μA
Maximum Reverse Recovery Time ($I_F = 1.0 A$, $di/dt = 50 A/\mu s$) ($I_F = 0.5 A$, $I_R = 1.0 A$, $I_{REC} = 0.25 A$)	T_{RR}	35 25				60 50			ns

Note 1.Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$

Typical Characteristics

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

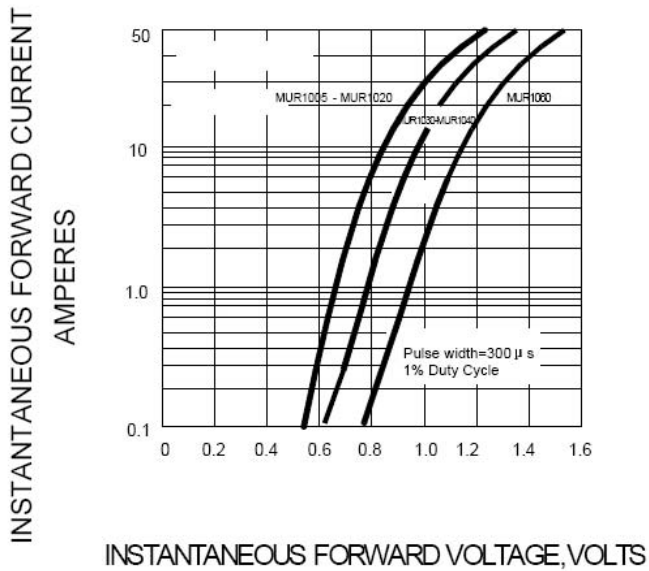


FIG.2 –TYPICAL REVERSE CHARACTERISTICS

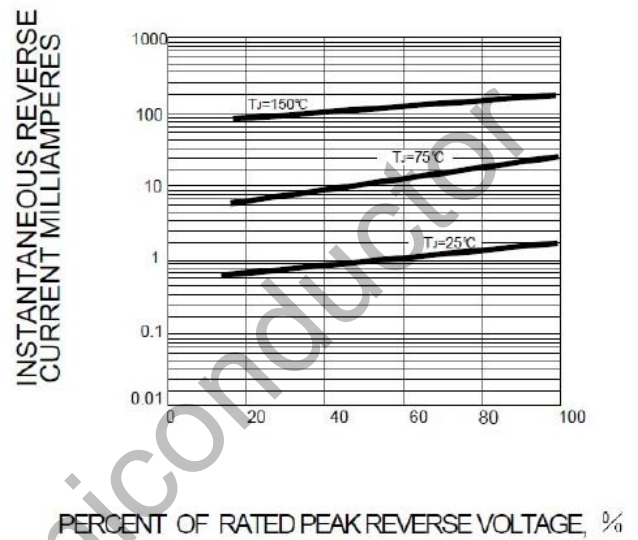


FIG.3 – PEAK FORWARD SURGE CURRENT

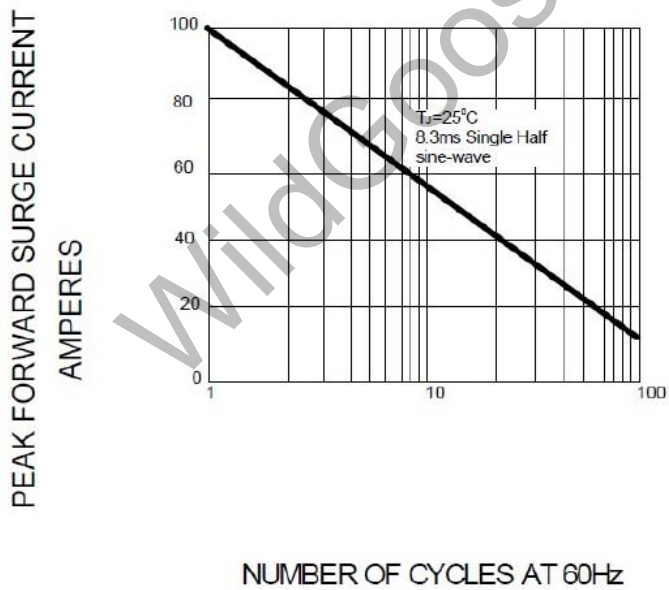
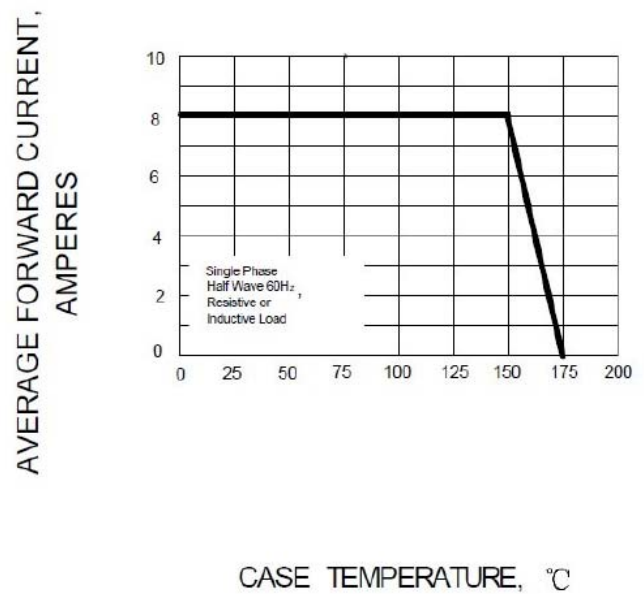


FIG.4 – FORWARD DERATING CURVE



Package Dimension

TO-220 -2L

Unit: mm

