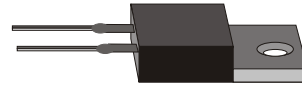


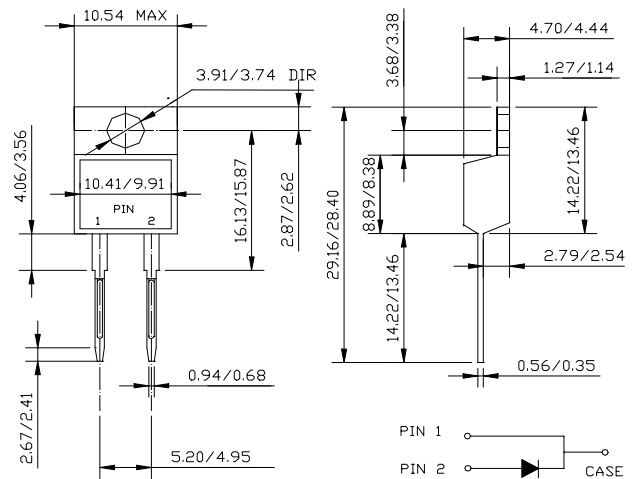
**VOLTAGE RANGE: 50 - 600V**  
**CURRENT: 8.0A**



### Features

- Low cost
- Diffused junction
- Glass passivated junction
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol, Isopropanol and similar solvents

TO - 220



### Mechanical Data

- Case: TO-220
- Terminals: solderable per
- MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.064 ounces, 1.81 gram
- Mounting position: Any



### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

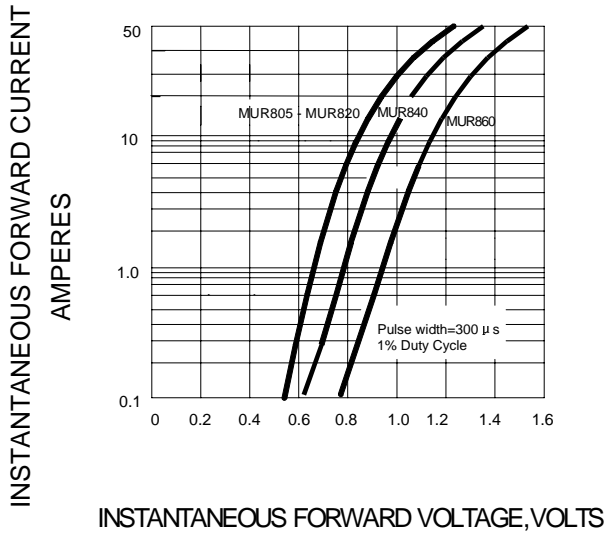
Characteristic	Symbol	MUR 805	MUR 810	MUR 815	MUR 820	MUR 840	MUR 860	Unit
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	150	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	280	420	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	400	600	V
Maximum average forward rectified current total device (rated $V_R$ ), $T_C=150$	$I_{(AV)}$	8.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	100						A
Maximum instantaneous forward voltage (Note1) @ $I_F=8.0A, T_C=25$ $I_F=8.0A, T_C=150$	$V_F$		0.975			1.30	1.50	V
			0.895			1.00	1.20	
Maximum reverse current at rated DC blocking voltage @ $T_j=25$ $T_j=150$	$I_R$		5.0			10		$\mu A$
			250			500		
Maximum reverse recovery time (Note2) (Note3)	$t_{rr}$		25			50		ns
			35			60		
Typical thermal resistance junction to case	$R_{\theta JC}$		3.0			2.0		/W
Operating junction temperature range	$T_j$	- 65 ---- + 175						
Storage temperature range	$T_{STG}$	- 65 ---- + 175						

NOTE: 1. Pulse test: pulse width=300 $\mu s$ , duty cycle 2.0%

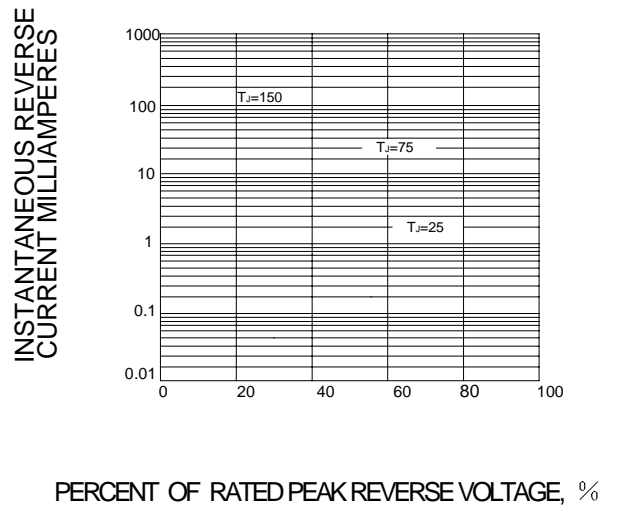
2. Measured with  $I_F=0.5A, I_R=1A, I_{rr}=0.25 A$ .

3. Measured with  $I_F=1.0A, di/dt=50A/\mu s$ .

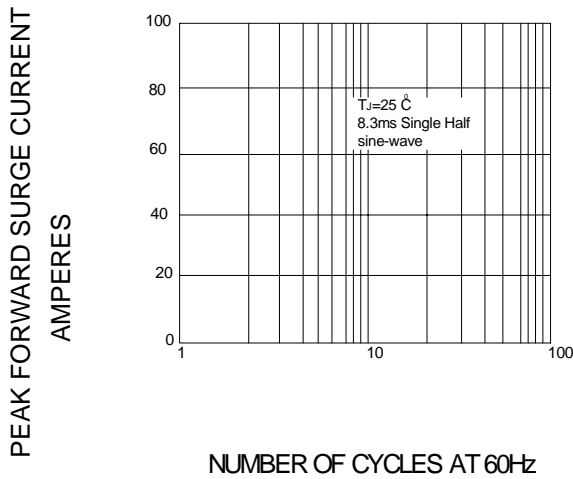
**FIG.1 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.2 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.3 – PEAK FORWARD SURGE CURRENT**



**FIG.4 – FORWARD DERATING CURVE**

