

### ULTRA FAST RECTIFIERS

VOLTAGE RANGE: 50 --- 600V

CURRENT: 8.0A

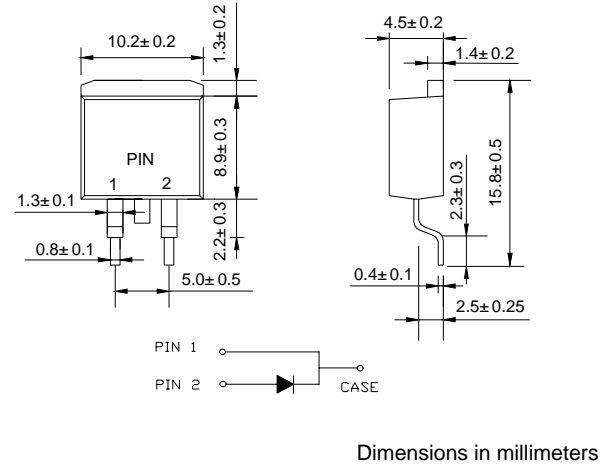
#### FEATURES

- Low cost
- Diffused junction
- Glass passivated junction
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

#### MECHANICAL DATA

- Case: JEDEC D<sup>2</sup>PAK
- Terminals: solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.087 ounces, 2.2 grams
- Mounting position: Any

#### D<sup>2</sup>PAK



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		MUR 805B	MUR 810B	MUR 815B	MUR 820B	MUR 830B	MUR 840B	MUR 860B	UNITS
Device marking code		U805B	U810B	U815B	U820B	U830B	U840B	U860B	
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	$V_{DC}$	50	100	150	200	300	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 0.895			1.30 1.00	1.50 1.20		V
Maximum reverse current at rated DC blocking voltage @ $T_j=25$ $T_j=150$	$I_R$		5.0 250			10 500			$\mu A$
Maximum reverse recovery time (Note2) (Note3)	$t_{rr}$		25 35			50 60			ns
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							

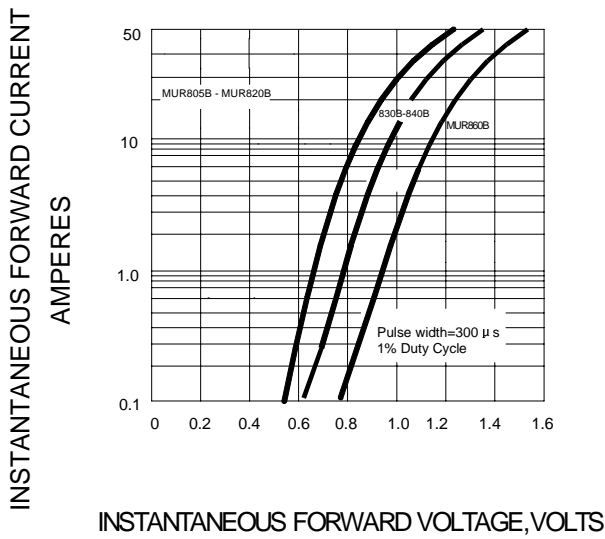
NOTE:1. Pulse test: pulse width=300 $\mu s$ , duty cycle 2.0%

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

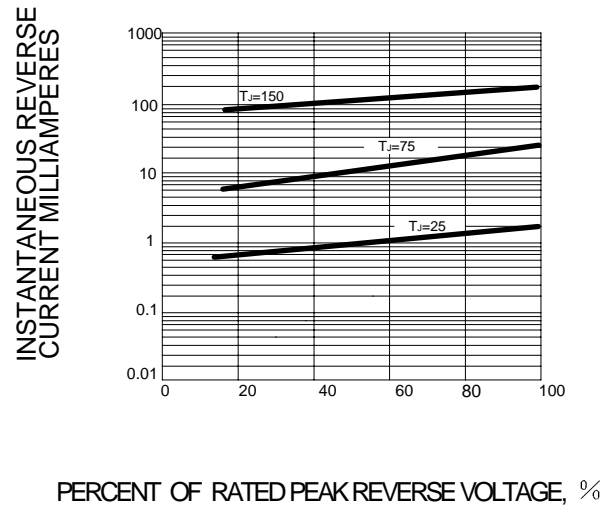
3. Measured with  $I_F=1.0A, di/dt=50A/\mu s$ .

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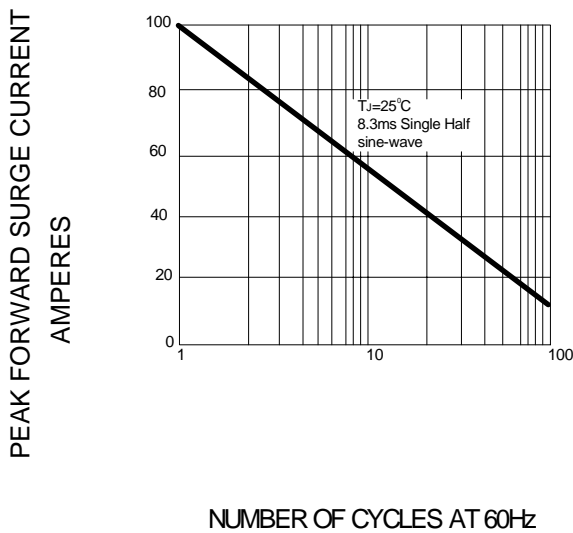
**FIG.1 –TYPICAL FORWARD CHARACTERISTIC**



**FIG.2--TYPICAL REVERSE CHARACTERISTICS**



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



**FIG.4 – FORWARD DERATING CURVE**

