SAMYANG ELECTRONICS

MUR820 --- MUR860

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 200 --- 600V
CURRENT: 8.0 A

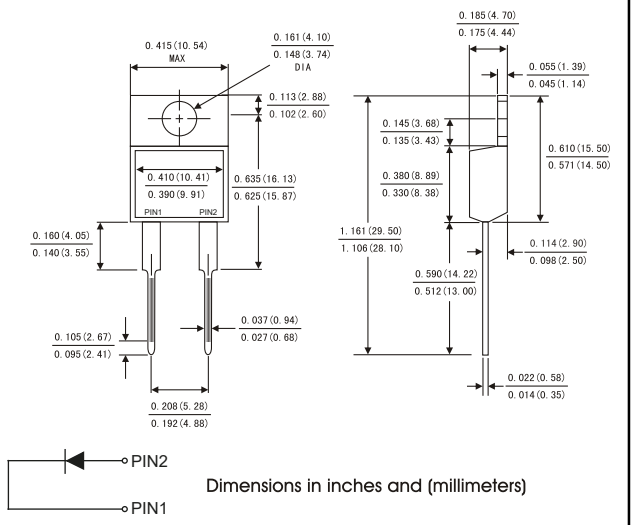
FEATURES

- ◇ Metal-Semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop,low switching losses
- ◇ High surge capability
- ◇ For use in low voltage,high frequency inverters free wheeling,and polarity protection applications
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case:JEDEC TO-220AC ,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-750,Method 2026
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.08 ounces,2.24 grams
- ◇ Mounting position: Any

TO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

	Symbols	MUR820	MUR840	MUR860	Units
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	Volts
Maximum RMS voltage	V_{RMS}	140	280	420	Volts
Maximum DC blocking voltage	V_{DC}	200	400	600	Volts
Maximum average forward rectified current(see Fig.1)	$I_{(AV)}$	8.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	125			Amps
Maximum instantaneous forward voltage at 10.0 A(Note 1)	V_F	0.975	1.3	1.7	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A =25℃	I_R	5	10		uA
T_A =125℃		500			
Maximum Reverse Recovery Time (Note 2)	Trr	35			ns
Typical thermal resistance (Note 3)	$R_{\theta JC}$	2.5			℃/W
Operating junction temperature range	T_J	-40 to+150			℃
Storage temperature range	T_{STG}	-40 to+150			℃

Note: 1. Pulse test : 300μs pulse width,1% duty cycle.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3.Thermal resistance junction to ambient.

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FIG.1-FORWARD CURRENT DERATING CURVE

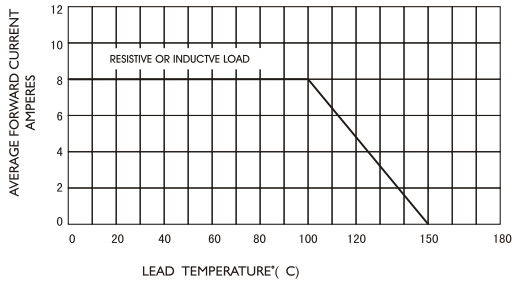


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

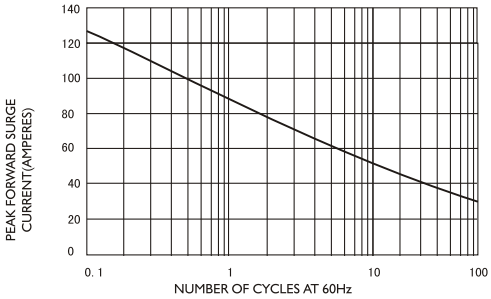


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

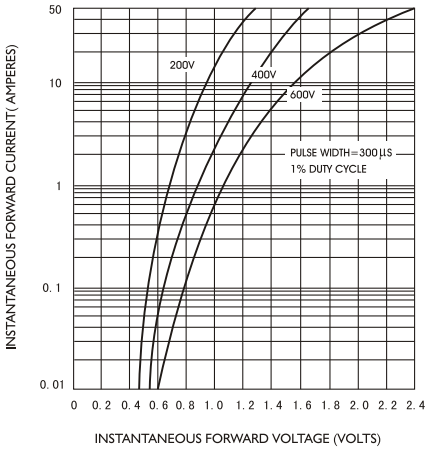


FIG.4-TYPICAL REVERSE CHARACTERISTICS

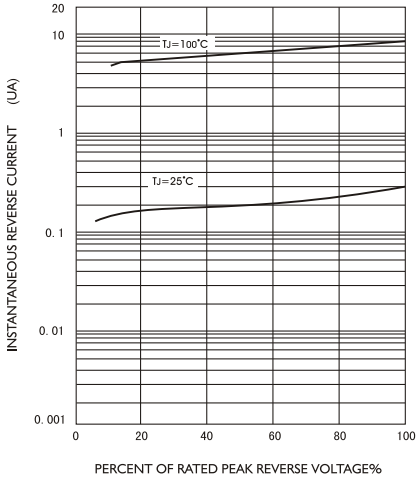


FIG.5-TYPICAL JUNCTION CAPACITANCE

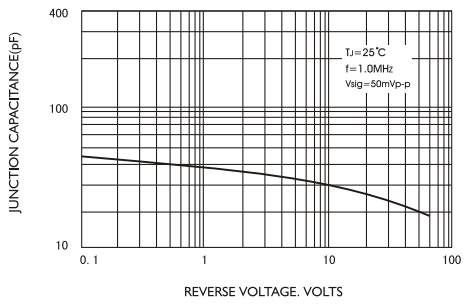


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

