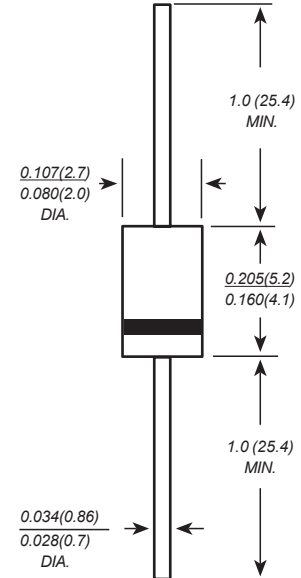


SUPER FAST RECTIFIERS

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Ultra fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/ 10 seconds at terminals

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Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Catalog Number	SYMBOLS	MUR120	MUR140	MUR160	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 0.375"(9.5mm) lead length	$I_{(AV)}$	1.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	35			Amps
Maximum instantaneous forward voltage at 1.0A	V_F	0.875	1.25		Volts
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=150^{\circ}C$	I_R	2.0 50.0	5.0 150.0		μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	25	50		ns
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	27.0	50.0		$^{\circ}C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175			$^{\circ}C$

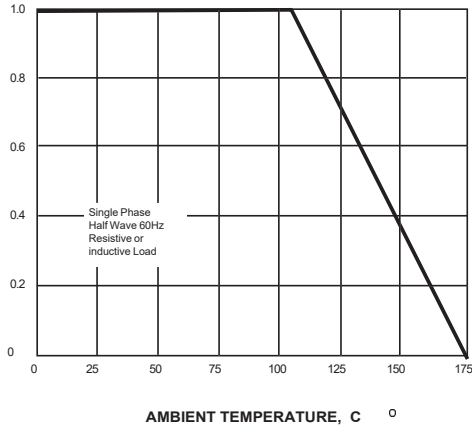
Note: 1. Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B. mounted

Ratings And Characteristic Curves

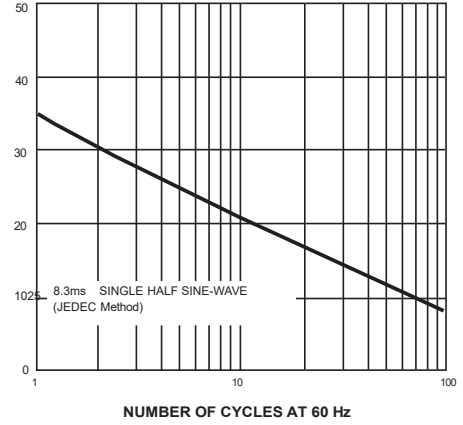
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



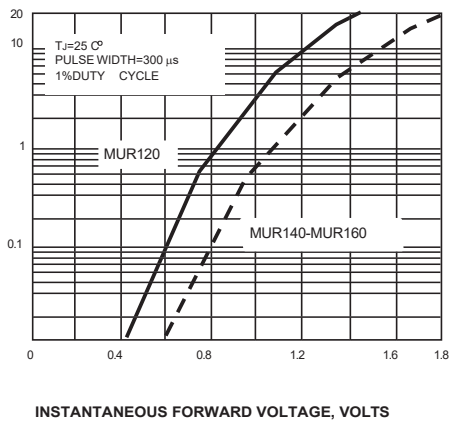
PEAK FORWARD SURGE CURRENT,
AMPERES

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



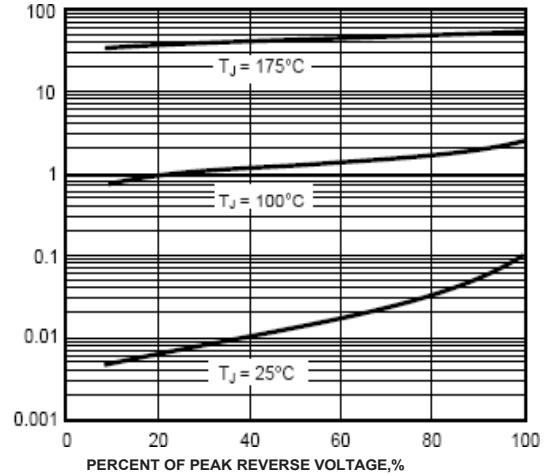
INSTANTANEOUS FORWARD
CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



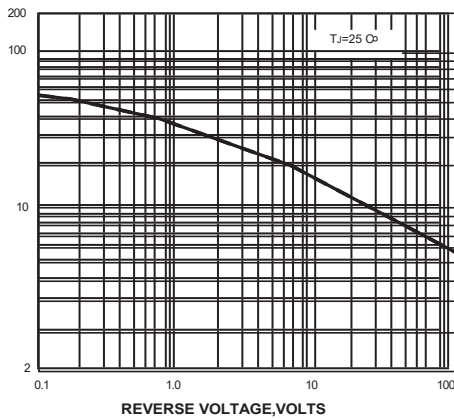
INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



The curve above is for reference only.