

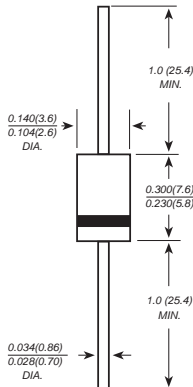


MUR120 THRU MUR160

ULTRA FAST RECTIFIERS

Reverse Voltage - 200 to 600 Volts Forward Current - 1.0 Amperes

DO-15



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ultra fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-15 molded plastic body over passivated chip
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.014 ounce, 0.40 grams

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%.

MDD 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 at rated DC blocking voltage	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		°C/W	
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175				°C

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

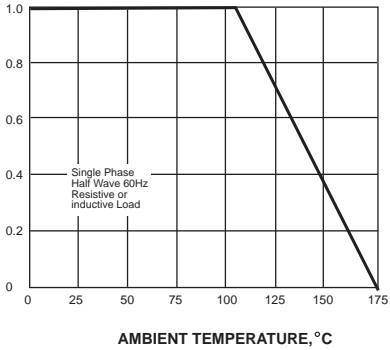
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

MDD ELECTRONIC

RATINGS AND CHARACTERISTIC CURVES MUR120 THRU MUR160

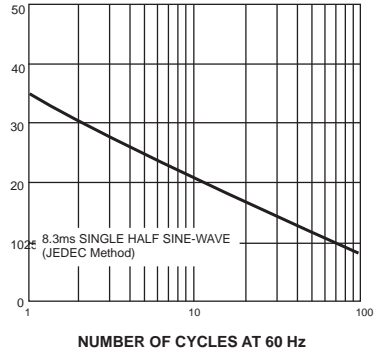
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



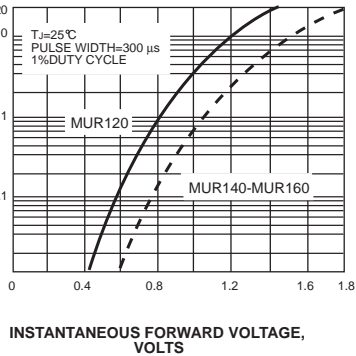
PEAK FORWARD SURGE CURRENT, AMPERES

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



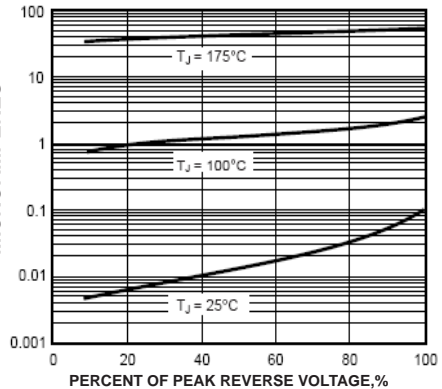
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

