

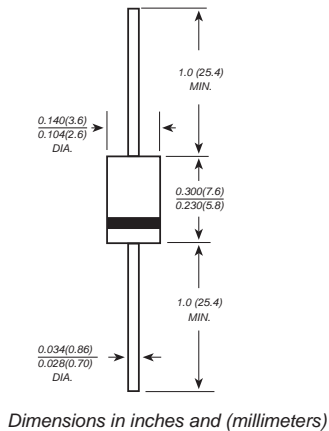


MUR120 THRU MUR160

ULTRA FAST RECTIFIERS

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

DO-15



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 $T_A=25^\circ C$ 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

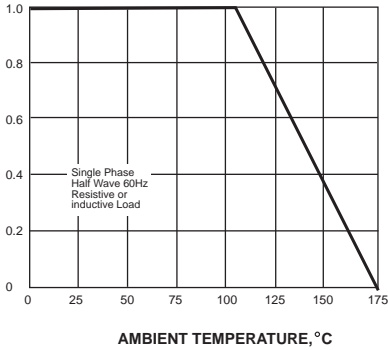


www.microdiode.com

RATINGS AND CHARACTERISTIC CURVES MUR120 THRU MUR160

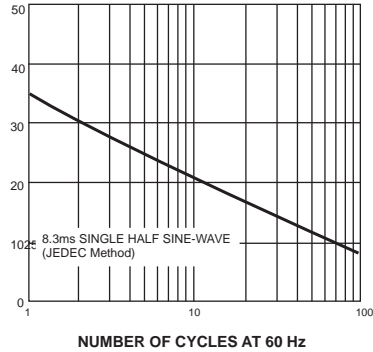
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



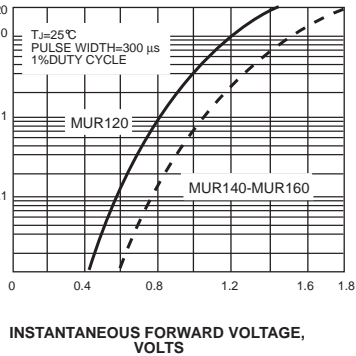
PEAK FORWARD SURGE CURRENT, AMPERES

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



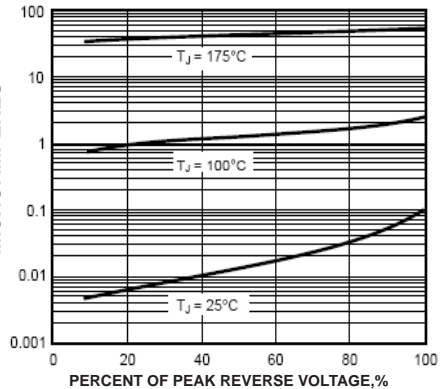
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



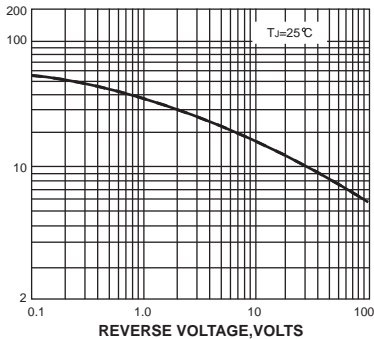
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



The curve graph is for reference only, can't be the basis for judgment()!

