

## 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

### Mechanical Data

**Case** : JEDEC DO-41 Molded plastic body

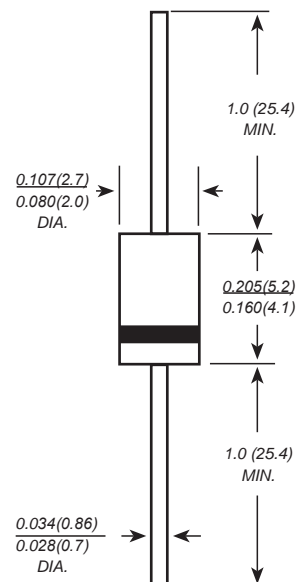
**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any

**Weight** : 0.04 ounce, 1.10 grams

DO-41



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%.

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		$\mu A$
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			$^\circ C$

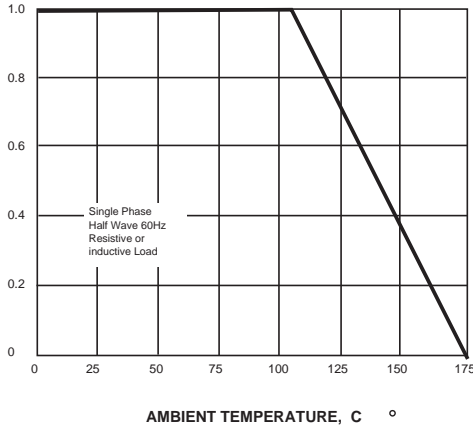
Note: 1. Reverse recovery condition  $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

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

## Ratings And Characteristic Curves

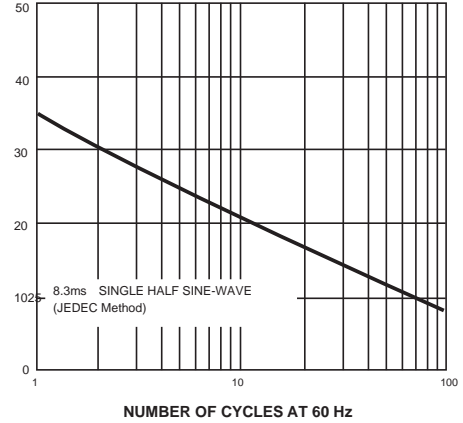
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



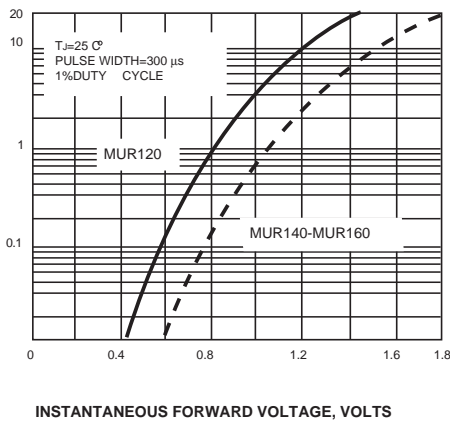
PEAK FORWARD SURGE CURRENT, AMPERES

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



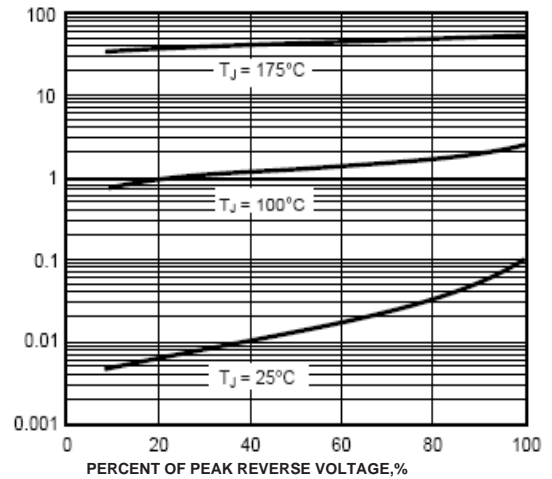
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



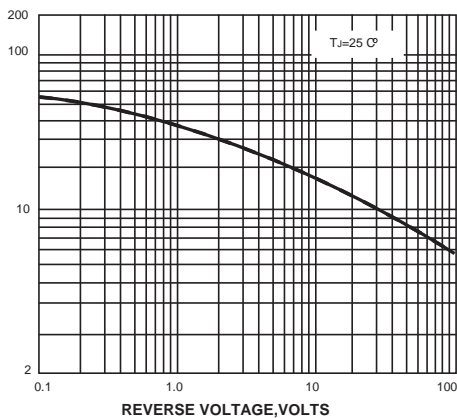
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

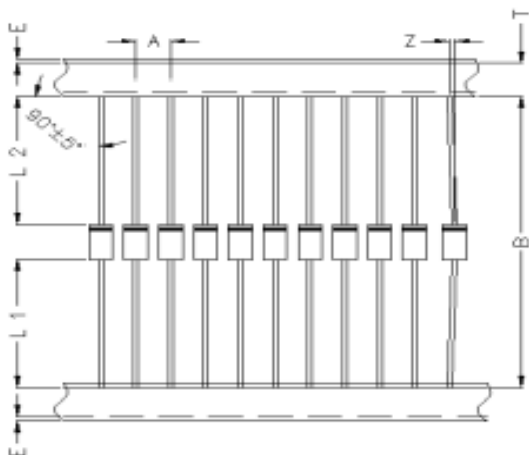
FIG. 5-TYPICAL JUNCTION CAPACITANCE



The curve above is for reference only.

## Package Information

### Taping Specifications



Item	Symbol	Specifications(mm)
Component Pitch	A	10.0±0.5
Inner Tape Pitch	B	52.4±1.5
Component alignment	Z	1.2 Max
Tape width	T	6.0±0.5
Exposed adhesive	E	0.8 Max
Body eccentricity	L1-L2	1.0 Max

### Ammunition Package Specifications

Package	Inner Box Size (mm)	QTY/Box (pcs)	Carton Size (mm)	Q'TY/Carton (pcs)
DO - 201AD	255*74*145	1000	410*275*340	10000

### Bulk Package Specifications

Package	Inner Box Size (mm)	QTY/Box (pcs)	Carton Size (mm)	Q'TY/Carton (pcs)
DO - 201AD	198*86*21	200	460*220*250	10000