

## Ultra-Fast Recovery Diodes

### Features

- ◆ High frequency operation.  
High surge forward current capability
- ◆ High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- ◆ Guard ring for enhanced ruggedness and long term reliability
- ◆ Solder dip 275 °C max. 7s, per JESD 22-B106

### Mechanical Data

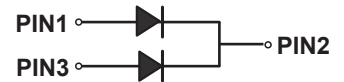
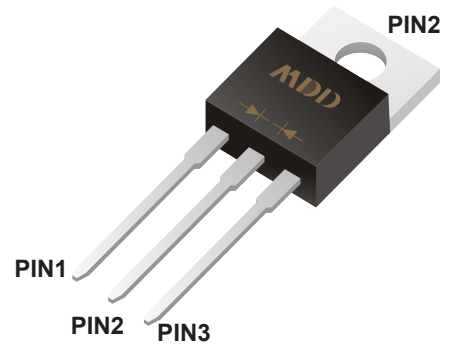
**Case** : JEDEC TO-220AB Molded plastic body

**Weight** : 0.067 ounce, 1.9 grams

Lead free finish, RoHS compliant

**Case Material**: "Green" molding compound, UL flammability classification 94V-0, "Halogen-free".

**TO-220AB**



### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	SYMBOLS	MDD MUR1020DCT	MDD MUR1040DCT	MDD MUR1060DCT	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	V
Maximum DC blocking voltage	$V_{DC}$	200	400	600	V
Maximum average forward rectified current at $T_C=110^\circ\text{C}$ per device per diode	$I_{(AV)}$	10.0 5.0			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50.0			A
Maximum instantaneous forward voltage per diode at 5.0A	$V_F$	1.0	1.3	1.6	V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	10 500			$\mu\text{A}$
Maximum reverse recovery time	$T_{rr}$	35			ns
Typical thermal resistance	$R_{qJC}$	4.0			$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +175			$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +175			$^\circ\text{C}$

Note: 1. Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$

## Ratings And Characteristic Curves

Fig.1 Typical Forward Current Derating Curve

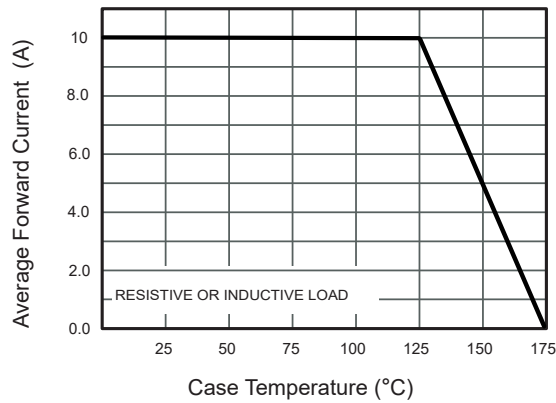


Fig.2 Typical Reverse Characteristics

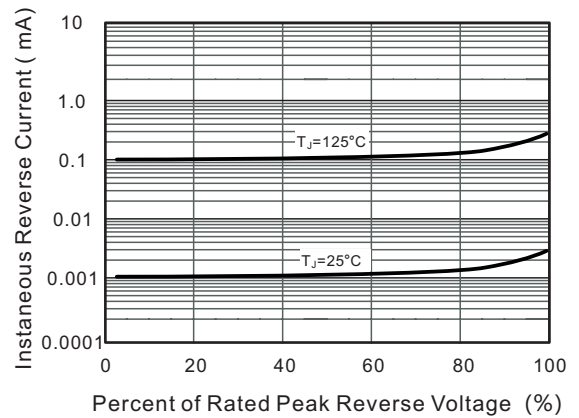


Fig.3 Typical Forward Characteristic

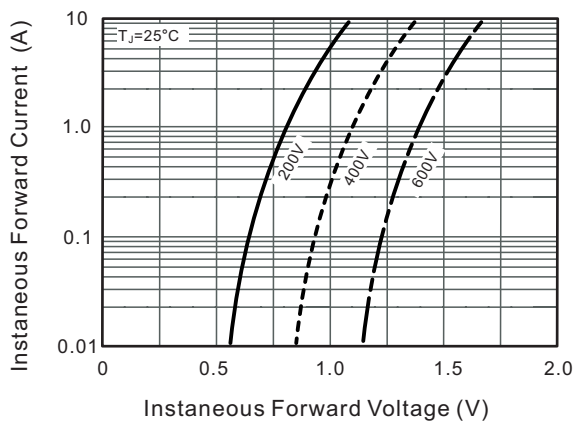
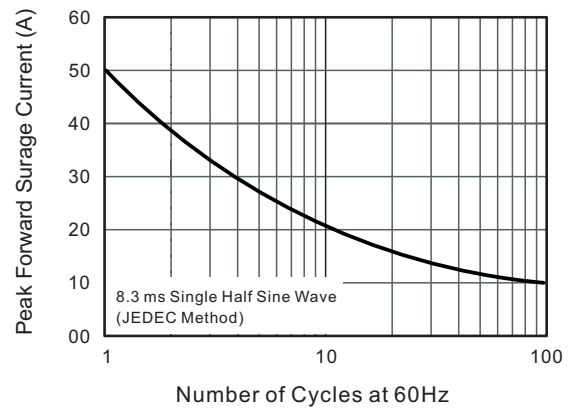


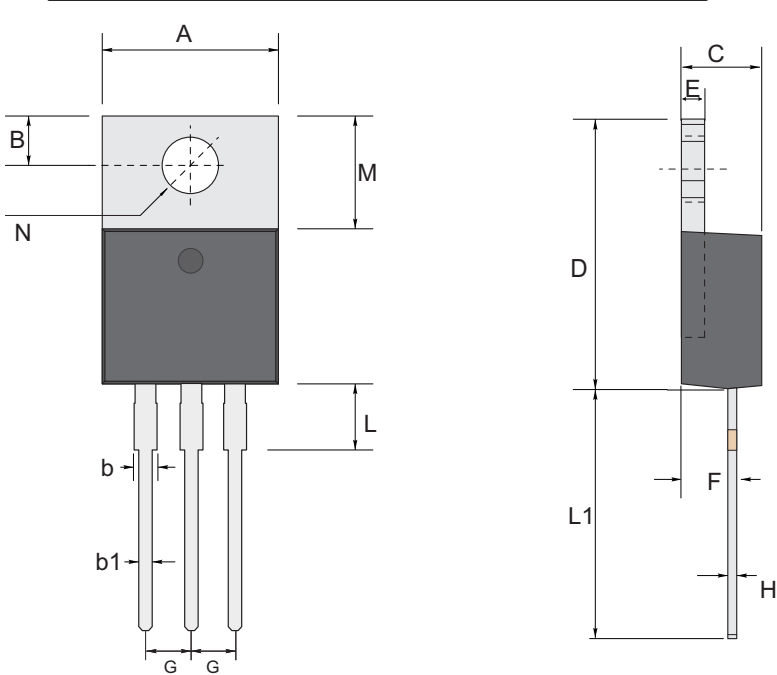
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.

## Outlitne

TO-220AB Package Outline Dimensions



TO-220AB mechanical data

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N
mm	max	10.45	2.94	1.77	0.94	4.76	16.0	1.40	2.90	2.54 TYPICAL	0.64	4.2	14.79	6.60	3.86
	min	9.85	2.54	1.14	0.62	4.42	14.6	1.14	2.20		0.35	2.8	13.00	6.13	3.8

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