



MUR1620AT THRU MUR1660AT

Fast Recovery Epi Diodes

Reverse Voltage - 200~600 Volts

Forward Current - 16 Amperes

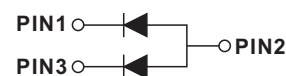
TO-220

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: TO-220-3L
- Approx Weight: 2.04g (0.07oz)
- Lead free finish, RoHS compliant
- Case Material: "Green" molding compound, UL flammability classification 94V-0, "Halogen-free".



Maximum Ratings And Electrical Characteristics

Ratings At 25°C Ambient Temperature Unless Otherwise Specified

Characteristics	Symble	MUR1620AT	MUR1640AT	MUR1660AT	Units
Maximum Recurrent 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 Per leg Per device	$I_{F(AV)}$	8 16			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	I_{FSM}	100			A
Max Instantaneous Forward Voltage at 8 A (Per leg)	V_F	1.0	1.3	1.6	V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 125^\circ\text{C}$	I_R	10 500			μA
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	35			ns
Typical Thermal Resistance	$R_{\theta JC}$	4			$^\circ\text{C/W}$
Operating Junction Temperature Range	T_j	$-55 \sim +150$			$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim +150$			$^\circ\text{C}$

NOTE 1: Reverse recovery test conditions $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

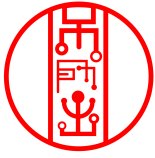


Fig.1 Typical Forward Current Derating Curve

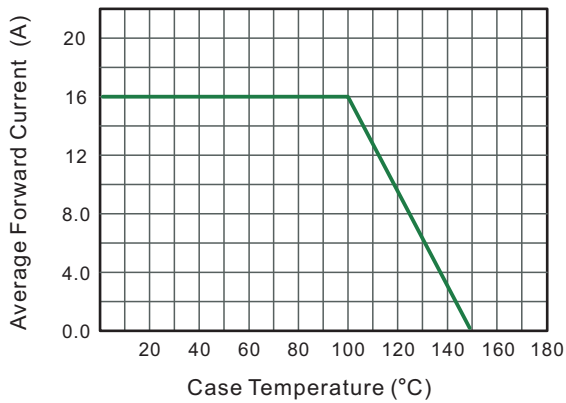


Fig.2 Typical Reverse Characteristics

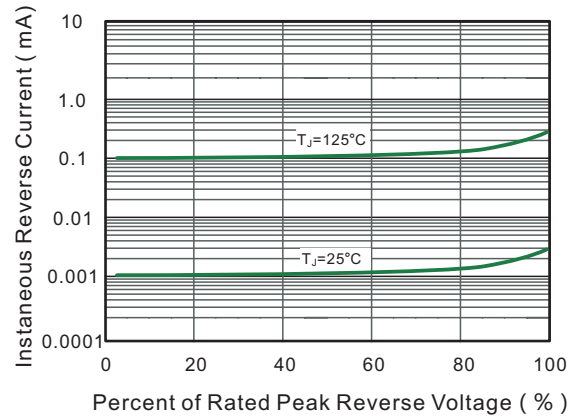


Fig.3 Typical Forward Characteristic

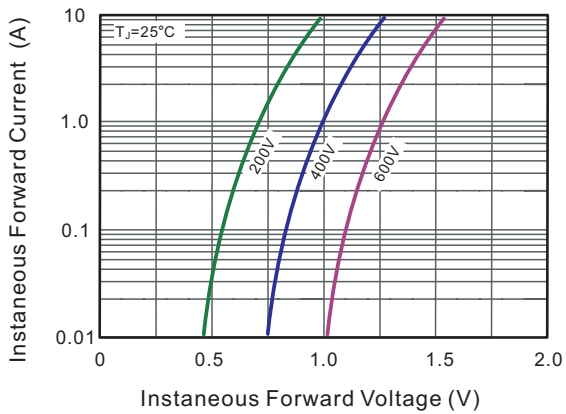
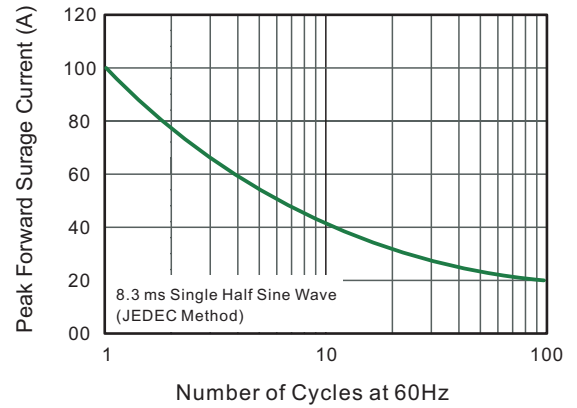
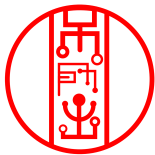


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

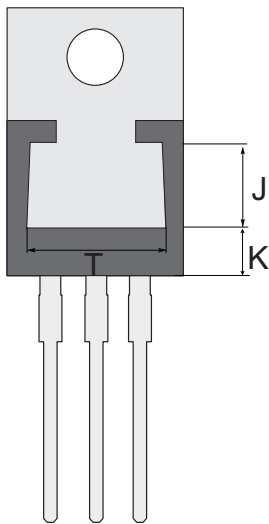
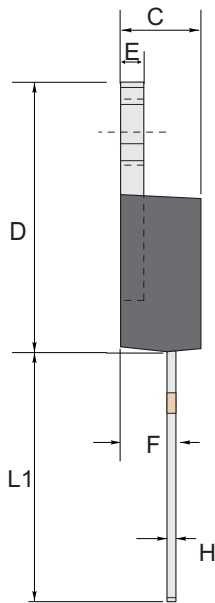
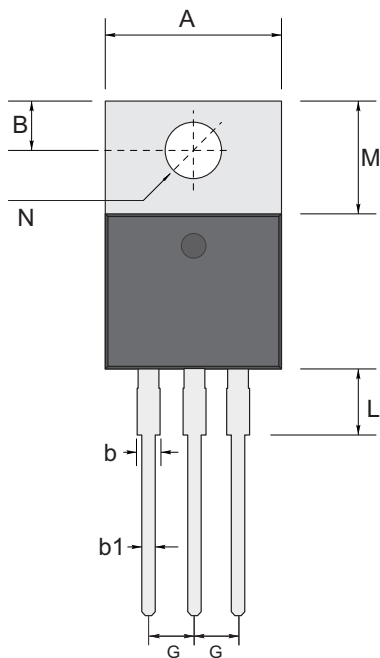




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PACKAGE OUTLINE
Plastic surface mounted package; 3 leads

TO-220



TO-220 mechanical data

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N	J	T	K
mm	max	10.45	2.94	1.77	0.94	4.76	16.0	1.40	2.80	2.54 TYPICAL	0.64	4.2	14.79	6.6 TYPICAL	3.8 TYPICAL	4.65 ref.	7.70 ref.	3.22 ref.
	typ	9.94	2.74	1.27	0.81	4.53	15.09	1.27	2.69		0.38	3.89	13.18					
	min	9.85	2.54	1.14	0.62	4.42	14.6	1.14	2.20		0.35	2.8	13.08					
mil	max	411	116	70	40	187	630	55	110	100 TYPICAL	25	165	582	259 TYPICAL	150 TYPICAL	1.83 ref.	303 ref.	126 ref.
	typ	391	107	50	31	178	594	50	105		15	153	519					
	min	388	100	45	24	174	575	45	87		14	110	515					