



Fast Recovery Epi Diodes
Reverse Voltage - 200~600 Volts
Forward Current - 16 Amperes

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-220ABW
- Approx. Weight: 1.87g (0.066oz)
- 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	MUR1620CD	MUR1640CD	MUR1660CD	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 8A (Per leg)	V_F	1.0	1.25	1.6	V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a = 125^{\circ}C$	I_R	10 500			uA
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	35			ns
Typical Thermal Resistance	$R_{\theta JC}$	4			°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150			°C
Storage Temperature Range	T_{stg}	-55 ~ +150			°C

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

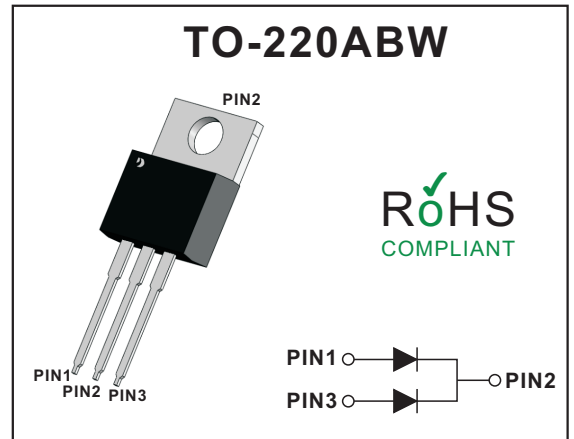




Fig.1 Typical Forward Current Derating Curve

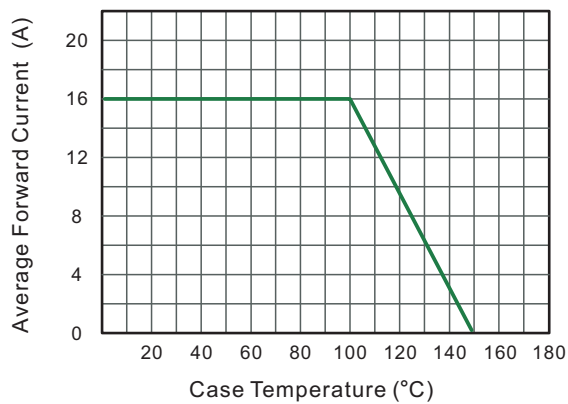


Fig.2 Typical Reverse Characteristics

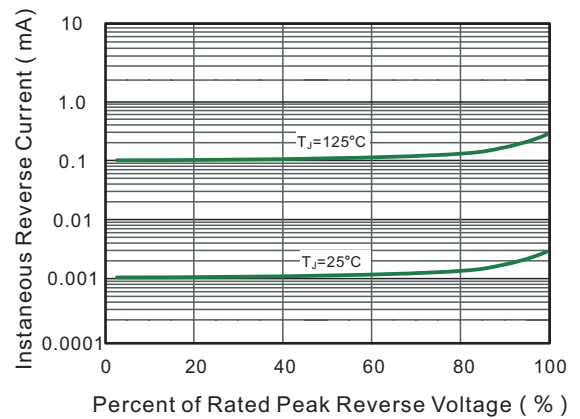


Fig.3 Typical Forward Characteristic

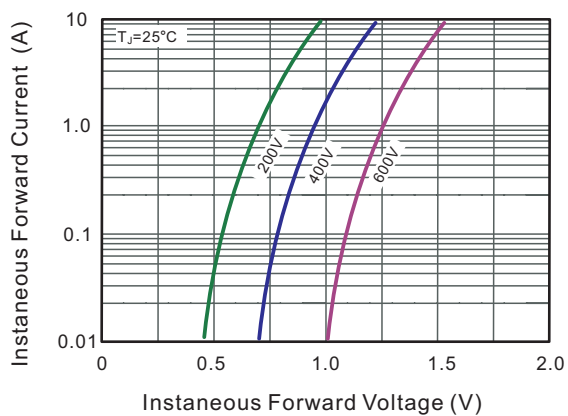
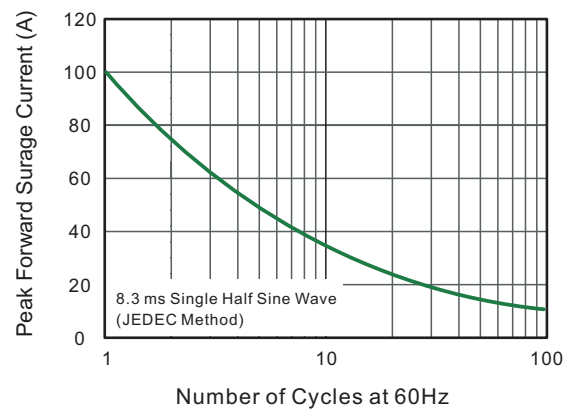


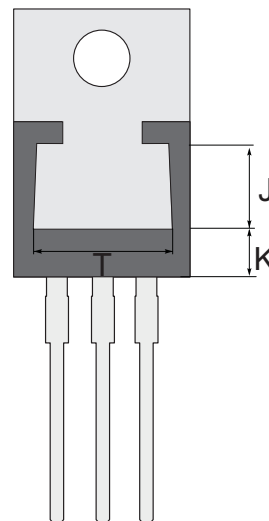
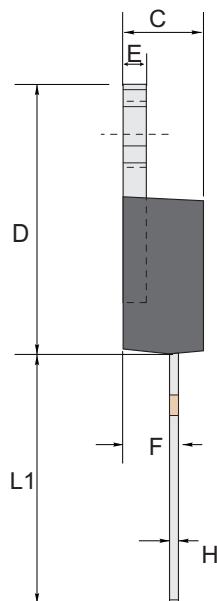
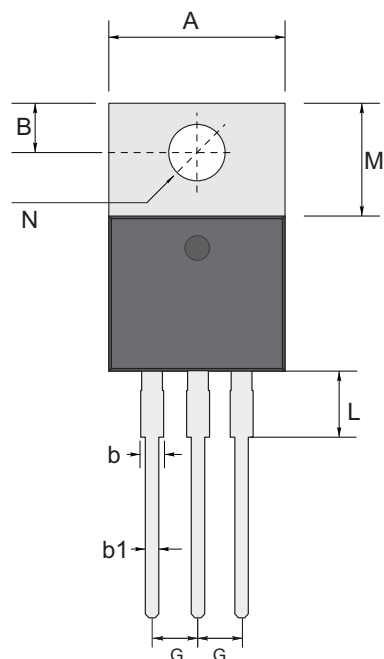
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current





Package Outline
Through Hole Package ; 3 leads

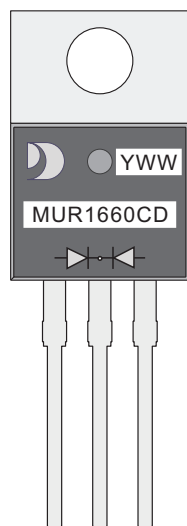
TO-220ABW



TO-220ABW 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	3.37	2.54 typ.	0.64	4.20	14.79	6.39 typ.	3.84 typ.	4.65 ref.	7.7 ref.	3.22 ref.
	typ	9.94	2.74	1.27	0.81	4.57	15.09	1.27	3.07		0.38	3.89	13.18					
	min	9.85	2.54	1.14	0.62	4.42	14.6	1.14	2.77		0.35	2.80	13.08					
mil	max	411	116	70	37	187	630	55	133	100 typ.	25	165	582	252 typ.	151 typ.	183 ref.	303 ref.	127 ref.
	typ	391	108	50	32	180	594	50	121		15	153	519					
	min	388	100	45	24	174	575	45	109		14	110	515					

Marking Diagram



YWW: Date Code
Y: Years(0~9)
WW: Week
MUR1660CD: Product name
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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