



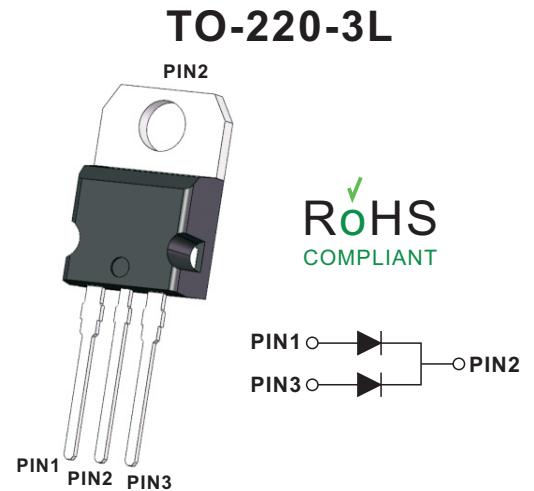
Fast Recovery Epi Diodes
Reverse Voltage - 800 Volts
Forward Current - 20 Amperes

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



Maximum Ratings And Electrical Characteristics

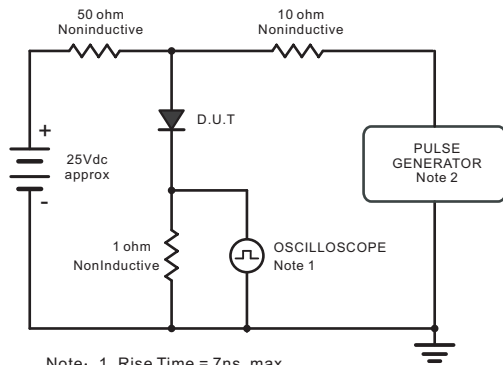
Ratings At 25°C Ambient Temperature Unless Otherwise Specified

Characteristics	Symbols	MUR2080CD	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	V
Maximum RMS voltage	V_{RMS}	560	V
Maximum DC blocking Voltage	V_{DC}	800	V
Maximum Average Forward Rectified Current Per leg Per device	$I_{F(AV)}$	10 20	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	I_{FSM}	100	A
Instantaneous forward voltage at 10 A (Per leg)	V_F	1.90	V
Maximum instantaneous reverse current at rated DC blocking voltage $T_j=25^{\circ}C$ $T_j=125^{\circ}C$	I_R	10 500	μA
Reverse Recovery Time (Note1)	t_{rr}	35	ns
Maximum Thermal Resistance Junction To Case	$R_{\theta JC}$	4	$^{\circ}C/W$
Operation Junction Temperature and Storage Temperature	T_j, T_{stg}	-55 ~ +150	$^{\circ}C$

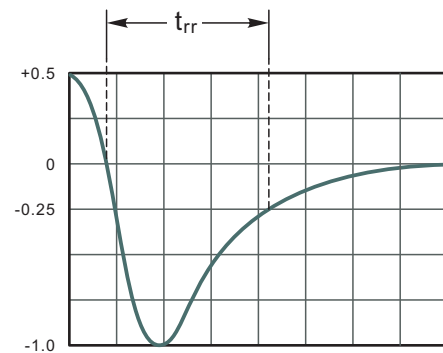
NOTE 1:Reverse recovery test conditions $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$



Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm,22pF.
2. Rises Time = 10ns, max.
Source Impedance = 50 ohms.



10ns/div
Set time Base for 10ns/div

Fig.2 Forward Current Derating Curve

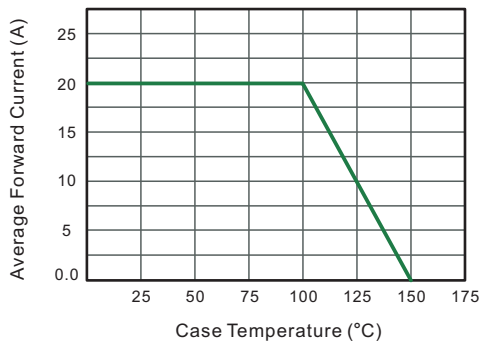


Fig.3 Typical Instaneous Reverse Characteristics

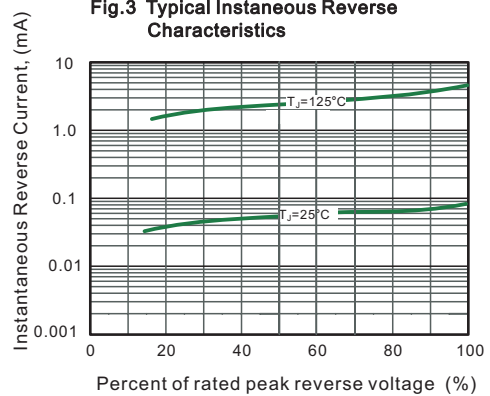


Fig.4 Typical Forward Characteristic

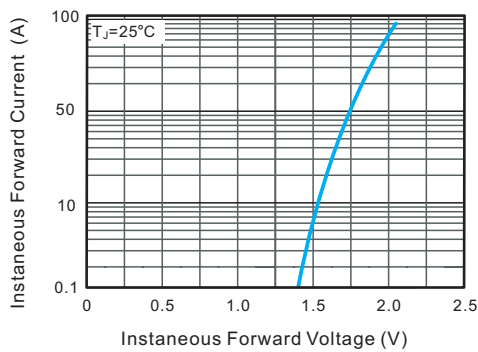


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

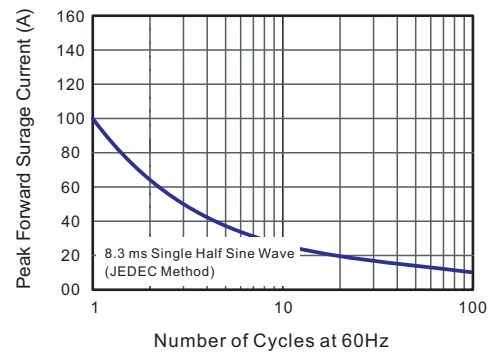


Fig.6 Max. Transient Thermal Impedance

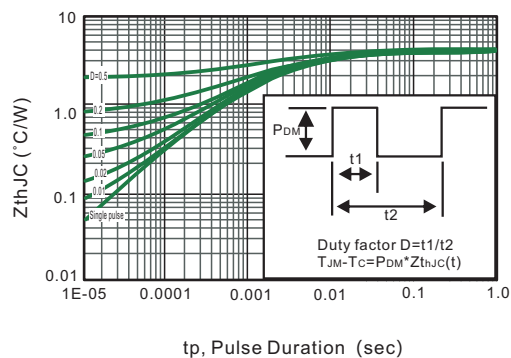
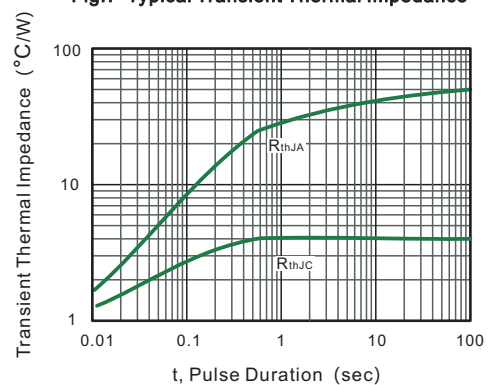


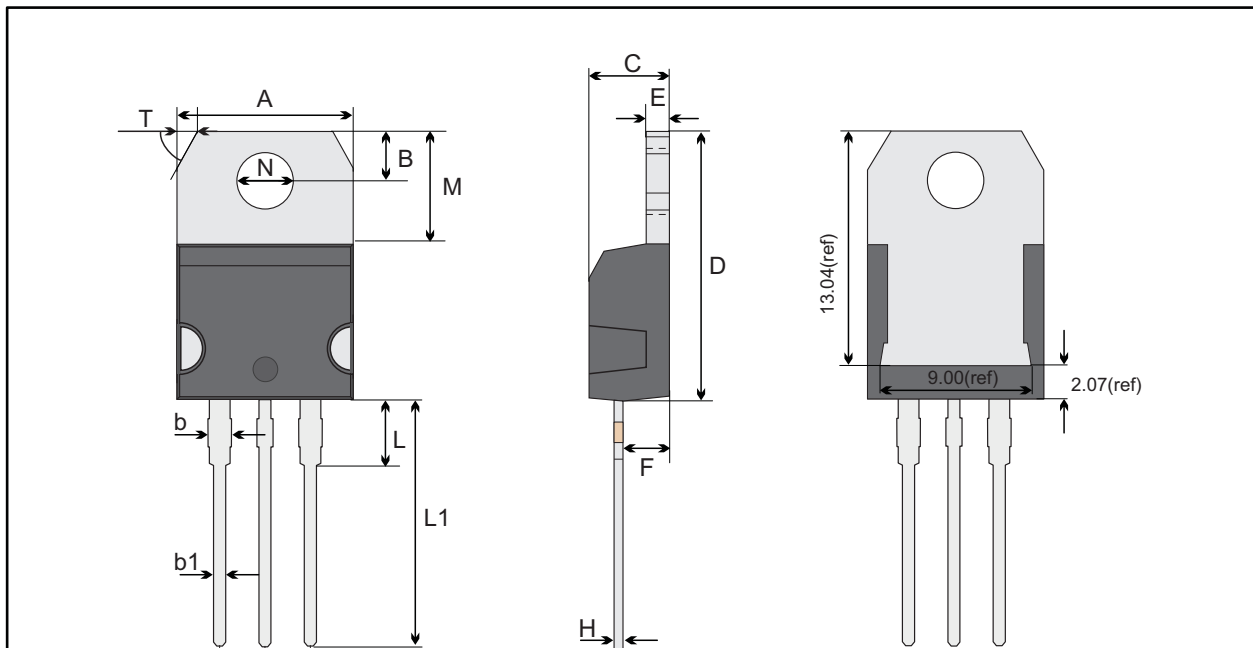
Fig.7 Typical Transient Thermal Impedance





Package Outline
Through Hole Package ; 3 leads

TO-220-3L



TO-220-3L mechanical data

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N	T
mm	max	10.28	2.84	1.67	0.9	4.65	15.54	1.37	2.79	2.64	0.6	3.88	13.13	6.39	3.82 typ.	1.19 58° ref.
	typ	10.18	2.74	1.47	0.8	4.45	15.34	1.27	2.59	2.54	0.5	3.68	12.93	6.19		
	min	10.08	2.64	1.27	0.7	4.25	15.14	1.17	2.39	2.44	0.4	3.48	12.73	5.99		
mil	max	405	112	66	35	183	612	54	110	104	24	153	517	252	150 typ.	47 58° ref.
	typ	401	108	58	31	175	604	50	102	100	20	145	509	244		
	min	397	104	50	28	167	596	46	94	92	16	137	501	236		

Marking

Type number	Marking code
MUR2080CD	MUR2080CD



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