



MUR2020C-TF THRU MUR2060C-TF

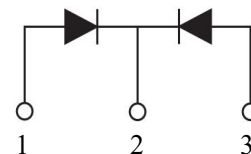
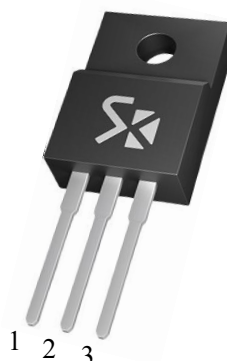
Fast Recovery Epi Diode

Reverse Voltage - 200~600V

Forward Current - 20A

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



TO-220F

Maximum Ratings And Electrical Characteristics

(T_A=25°C unless otherwise specified)

Parameter		Symbol	MUR 2020C-TF	MUR 2040C-TF	MUR 2060C-TF	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	Per leg	I _{F(AV)}	10			A
	Per device		20			
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load(JEDEC method)(per leg)		I _{FSM}	150			A
Maximum Instantaneous Forward Voltage at 10A(Per leg)		V _F	1.0	1.3	1.6	V
Maximum DC Reverse Current At Rated DC Reverse Voltage	T _A =25°C	I _R	10			μA
	T _A =125°C		500			
Maximum Revers Recovery Time ⁽¹⁾		t _{rr}	35			ns
Typical Junction Capacitance (f=1MHz,V _R =4V)		C _J	65	50	30	pF
Typical Thermal Resistance		R _{θJC}	4			°C/W
Operating Junction Temperature Range		T _J	-55~+150			°C
Storage Temperature Range		T _{STG}	-55~+150			°C

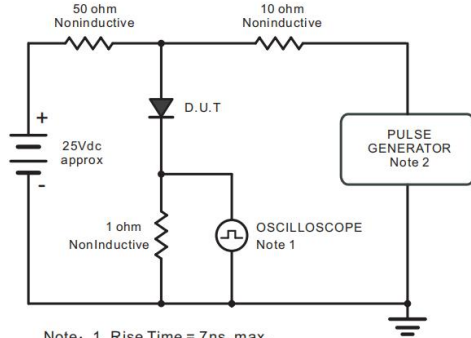
Note: (1). Reverse recovery test conditions I_F=0.5A, I_R=1.0A, I_{rr}=0.25A



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Typical Characteristic

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



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

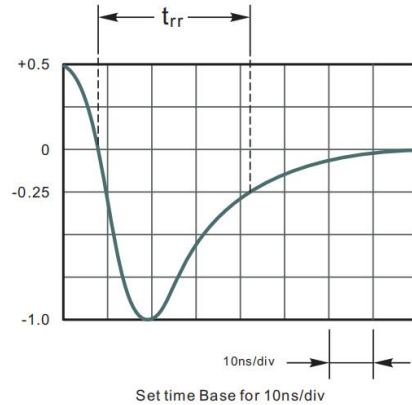


Fig.2 Forward Current Derating Curve

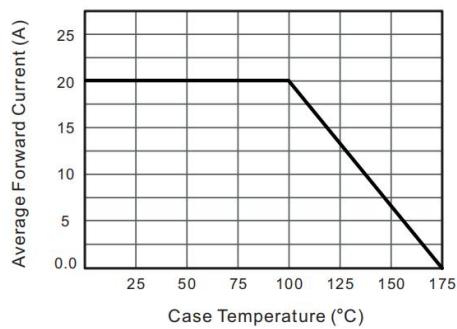


Fig.3 Typical Instantaneous Reverse Characteristics

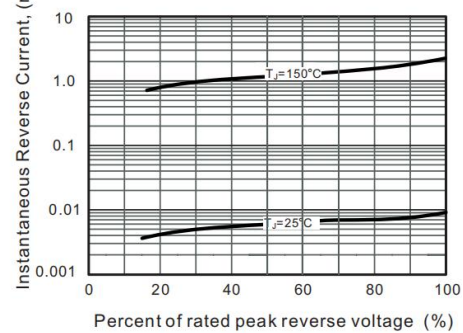


Fig.4 Typical Forward Characteristic

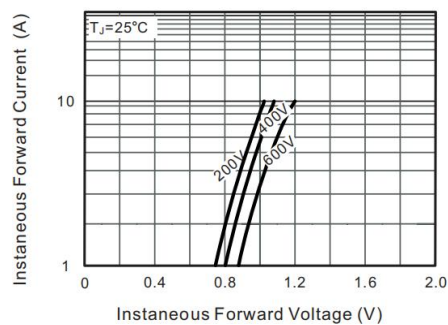


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

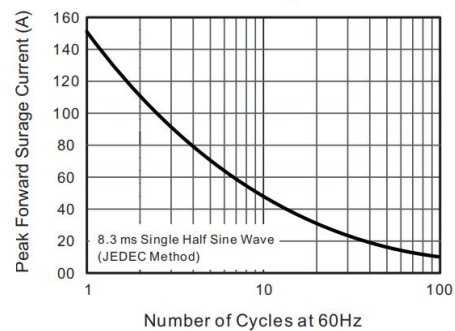


Fig.6 Max. Transient Thermal Impedance

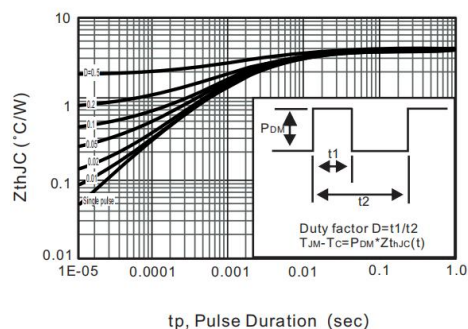
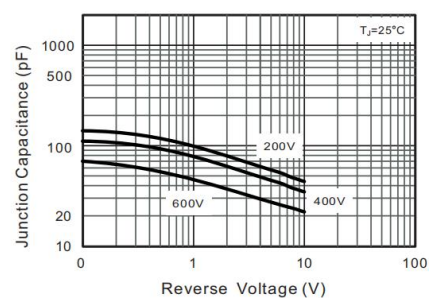


Fig.7 Typical Junction Capacitance



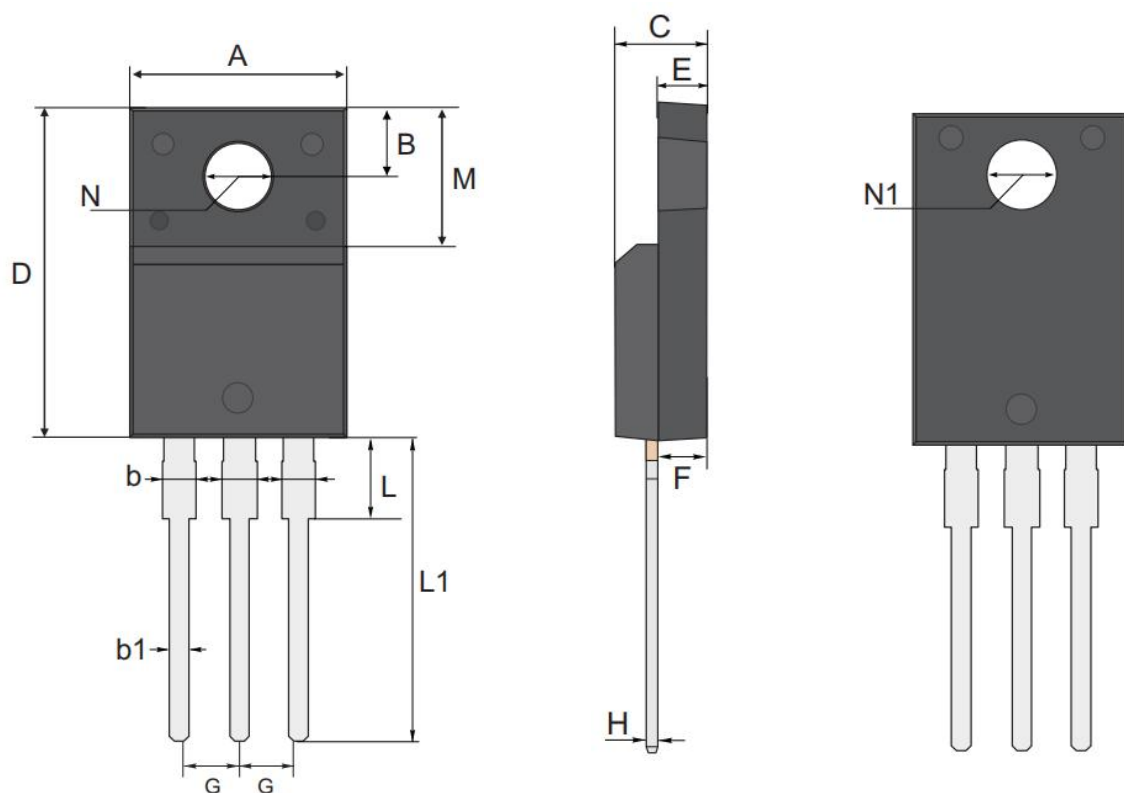


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Package Information

TO-220F

Dimensions in mm



UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N	N1
mm	max	10.28	3.37	1.44	0.9	4.9	16.07	2.74	2.74	2.64	0.6	2.85	13.7	6.98	3.65	3.38
	typ	10.18	3.27	1.34	0.8	4.7	15.87	2.54	2.54	2.54	0.5	2.65	13.5	6.68	3.45	3.18
	min	10.08	3.17	1.24	0.7	4.5	15.67	2.34	2.34	2.44	0.4	2.45	13.3	6.38	3.25	2.98
mil	max	405	133	57	35	193	633	108	108	104	24	112	539	275	144	133
	typ	401	129	53	31	185	625	100	100	100	20	104	531	263	136	125
	min	397	125	49	28	177	617	92	92	96	16	96	524	251	128	117



MUR2020C-TF THRU MUR2060C-TF

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