

MUR1640CTF

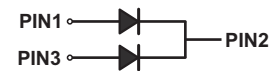
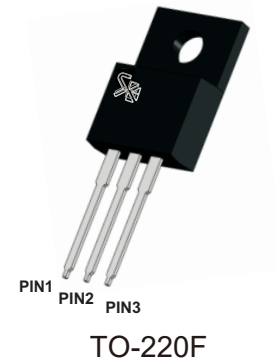
Fast Recovery Epi Diodes
Reverse Voltage – 400 Volts
Forward Current – 16 Amperes

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: O-220F
- Approx. Weight: 2.1g (0.07oz)
- Lead free finish, RoHS complian
- Case Material: “Green” molding compound, U flammability classification 94V-0, “Halogen-free”.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25°C ambient temperature unless otherwise specified

PARAMETER	Symbols	MUR1620CTF	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS voltage	V_{RMS}	280	V
Maximum DC blocking Voltage	V_{DC}	400	V
Maximum Average Forward Rectified Current @Tc=100°C 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)	I_{FSM}	100	A
Instantaneous forward voltage at 8A per leg	V_F	1.25	V
Maximum instantaneous reverse current at rated DC blocking voltage Ta=25°C Ta=125°C	I_R	10 100	uA
Maximum Reverse Recovery Time NOTE 1	t_{rr}	35	ns
Maximum Thermal Resistance Junction To Case	$R_{\theta JC}$	4	°C/W
Operation Junction Temperature and Storage Temperature	T_j, 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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Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

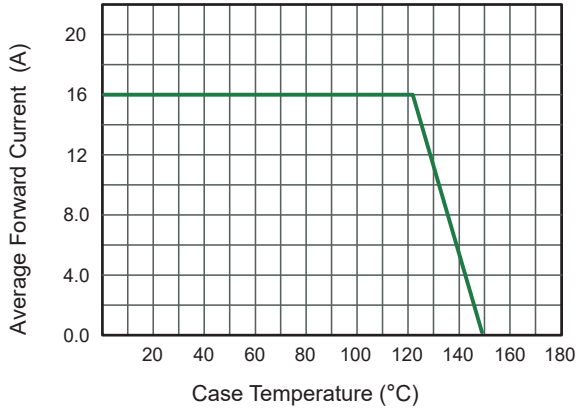


Fig.2 Typical Reverse Characteristics

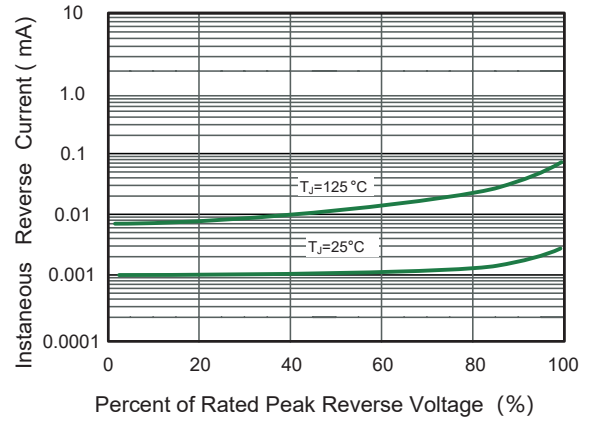


Fig.3 Typical Forward Characteristics

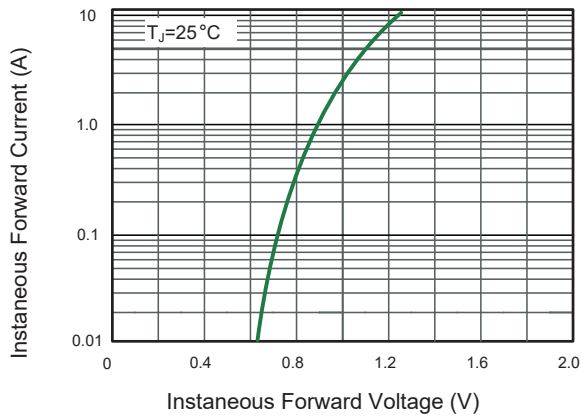
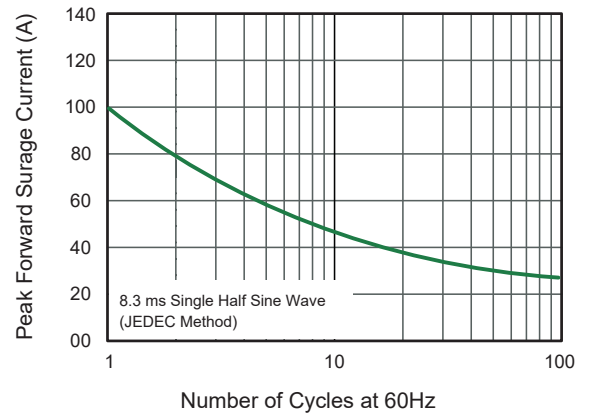


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



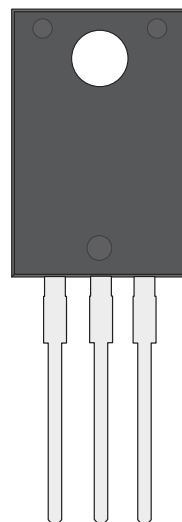
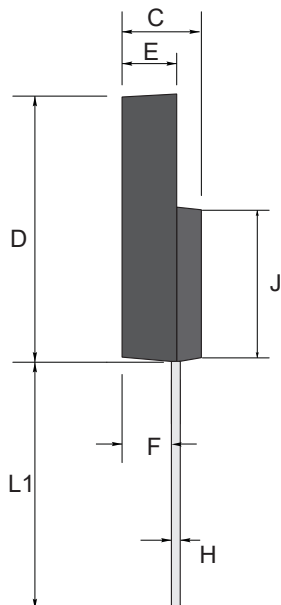
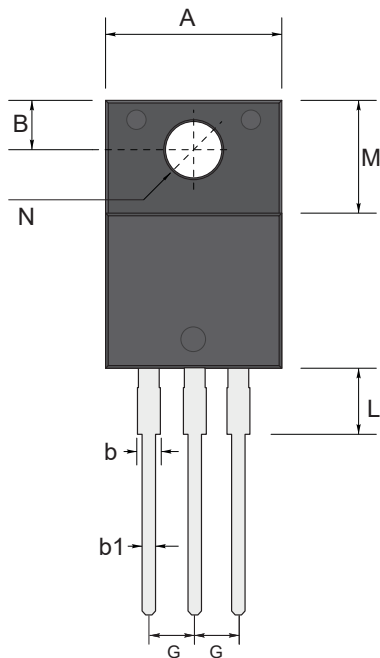


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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

TO-220F



TO-220F mechanical

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N
mm	max	10.5	2.85	1.4	0.8	4.7	16.0	2.9	2.8	2.54 TYPICAL	0.70	2.9	14.3	7.0	3.4 TYPICAL
	typ	10.0	2.70	1.2	0.6	4.5	15.0	2.7	2.7		0.55	2.5	13.5	6.8	
	min	9.85	2.54	1.1	0.5	4.4	14.7	2.5	2.5		0.41	2.3	13.0	6.3	
mil	max	413	112	55	31	185	630	114	110	100 TYPICAL	27	114	563	276	133 TYPICAL
	typ	394	106	47	24	177	590	106	106		22	98	531	267	
	min	388	100	43	20	173	580	98	98		16	91	512	248	