

Ultrafast Recovery Rectifier

MUR1630CT

FEATURES

- Ultrafast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- 175°C Operating Junction Temperature
- High Temperature Glass Passivated Junction

MECHANICAL CHARACTERISTICS

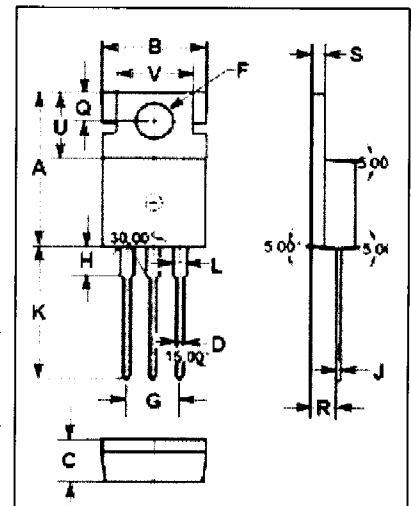
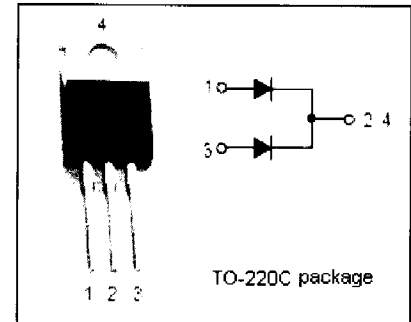
- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds

APPLICATIONS

- Designed for use in switching power supplies, inverters and as free wheeling diodes.

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	300	V
I _{F(AV)}	Average Rectified Forward Current Per Leg (Rated V _R) Total Device	8 16	A
I _{FM}	Peak Repetitive Forward Current (Rated V _R , Square Wave, 20kHz) Per Diode Leg	16	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half- wave, single phase, 60Hz)	100	A
T _J	Junction Temperature	-65~175	°C
T _{stg}	Storage Temperature Range	-65~175	°C



DIM	mm	
	MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86



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Ultrafast Recovery Rectifier**MUR1630CT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.0	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$) (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F= 8A$	1.68	V
I_R	Maximum Instantaneous Reverse Current	$V_{RRM}= 300V$	3	μ A
t_{rr}	Maximum Reverse Recovery Time	$I_F= 0.5A, I_R= 1A, I_{rr}= 0.25A$	60	ns