

**Ultrafast Rectifier**

**MUR2040CT**

**FEATURES**

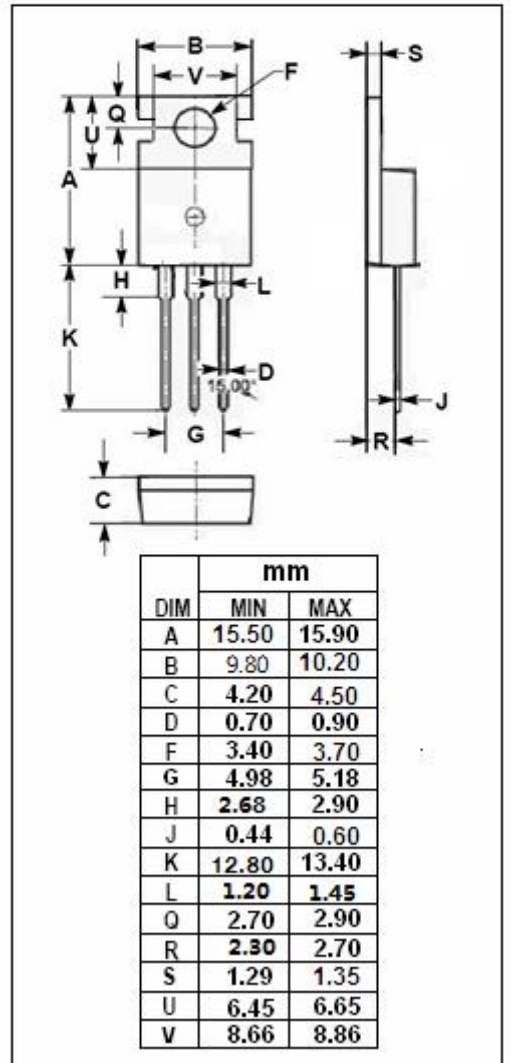
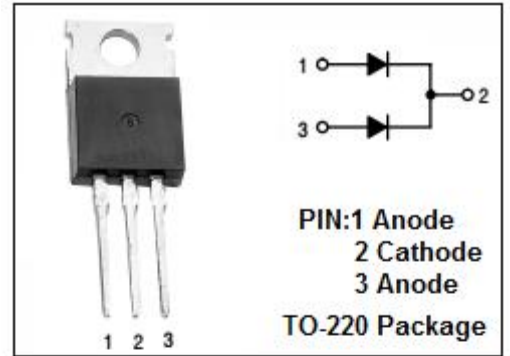
- Guarding for over voltage protection
- Dual rectifier construction, positive center tap
- Metal of silicon rectifier, majority carrier conduction
- Low forward voltage, high efficiency
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Switching power supply
- Power switching circuits

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	400	V
I <sub>F(AV)</sub>	Average Rectified Forward Current Per Leg Total device	10 20	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
P <sub>D</sub>	Maximum power dissipation	76	W
T <sub>J</sub>	Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



**Fast Recovery Rectifier****MUR2040CT****THERMAL CHARACTERISTICS**

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

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F=10\text{A}; T_j=25^\circ\text{C}$	1.3	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=125^\circ\text{C}$ $V_R=V_{RWM}$	250 10	$\mu$ A
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=1\text{A};$	50	ns

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