

# Ultrafast Recovery Rectifier

MUR3020

## FEATURES

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

## MECHANICAL CHARACTERISTICS

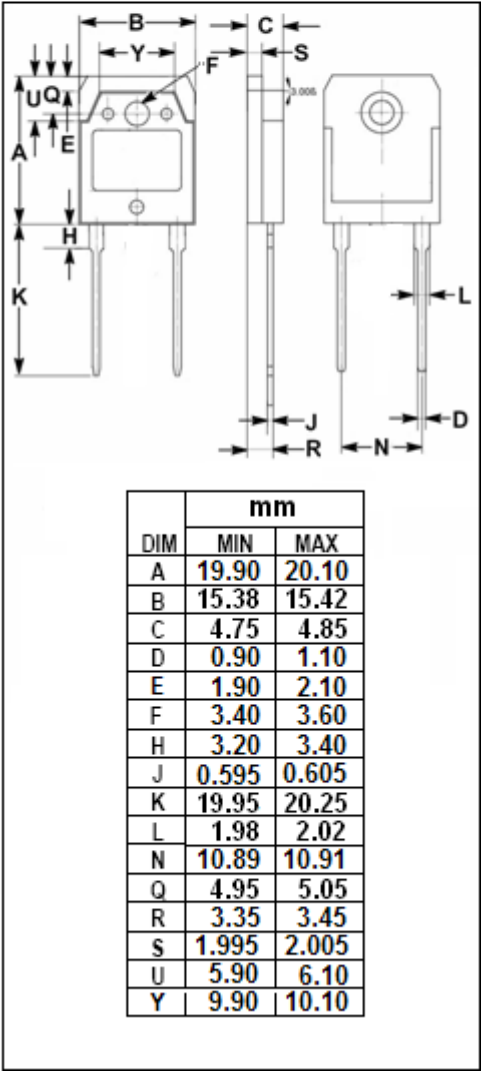
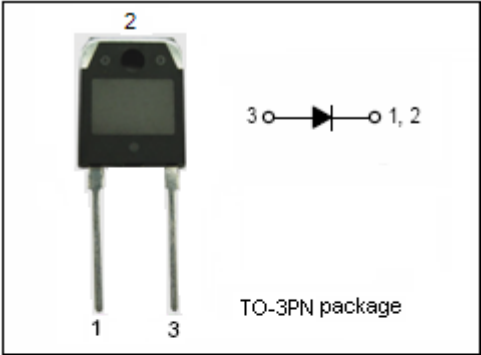
- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds

## APPLICATIONS

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

## ABSOLUTE MAXIMUM RATINGS(T<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	200	V
I <sub>F(AV)</sub>	Average Rectified Forward Current (Rated V <sub>R</sub> )	30	A
I <sub>FRM</sub>	Peak Repetitive Forward Current (Rated V <sub>R</sub> , Square Wave, 20kHz)	30	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	300	A
T <sub>J</sub>	Junction Temperature	-65~175	°C
T <sub>stg</sub>	Storage Temperature Range	-65~175	°C



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**MUR3020****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F=30A$	1.68	V
$I_R$	Maximum Instantaneous Reverse Current	$V_{RRM}=200V$	20	$\mu A$
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=0.5A, I_R=1A, I_{rr}=0.25A$	60	ns