

## Ultrafast Recovery Rectifier

## MUR8100E

## FEATURES

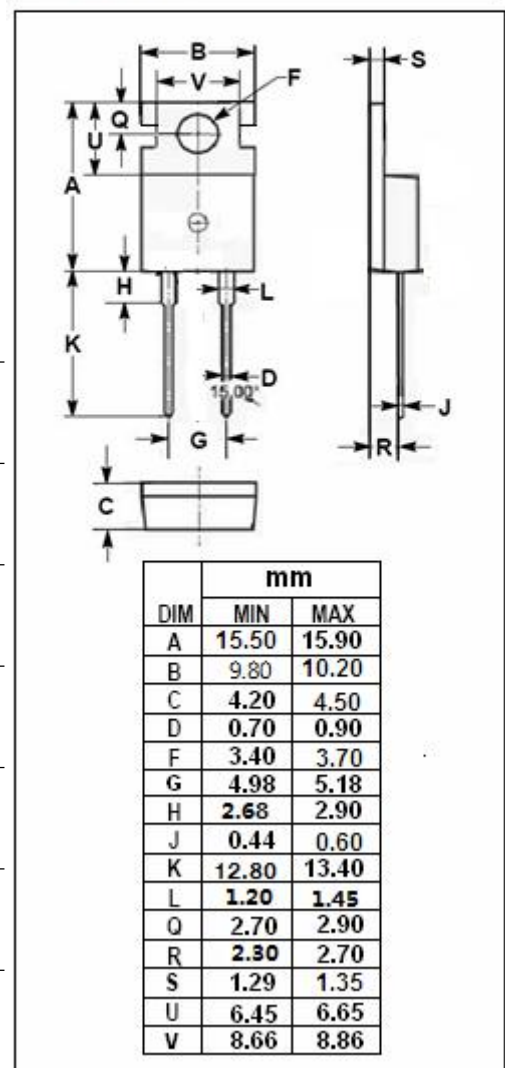
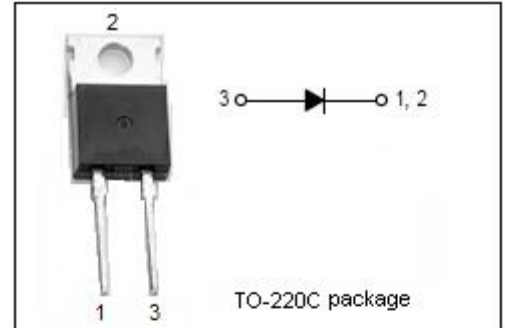
- Ultrafast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- 175°C Operating Junction Temperature
- High Temperature Glass Passivated Junction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Designed for use in switching power supplies and other power Switching applications.

ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{RRM}$ $V_{RWM}$ $V_R$	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	1000	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated $V_R$ )	8	A
$I_{FM}$	Peak Repetitive Forward Current (Rated $V_R$ , Square Wave, 20kHz)	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	-55~175	°C
$T_{stg}$	Storage Temperature Range	-55~175	°C



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## 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  $\mu\text{s}$ , Duty Cycle $\leq 2\%$ )

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F=8\text{A}$	1.8	V
		$I_F=8\text{A}; T_C=150^\circ\text{C}$	1.5	V
$I_R$	Maximum Instantaneous Reverse Current	$V_{RRM}=1000\text{V}$	100	$\mu\text{A}$
		$V_{RRM}=1000\text{V}; T_C=150^\circ\text{C}$	500	$\mu\text{A}$
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=1\text{A}$	85	ns

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