

## Ultrafast Rectifier

## MUR10120

## FEATURES

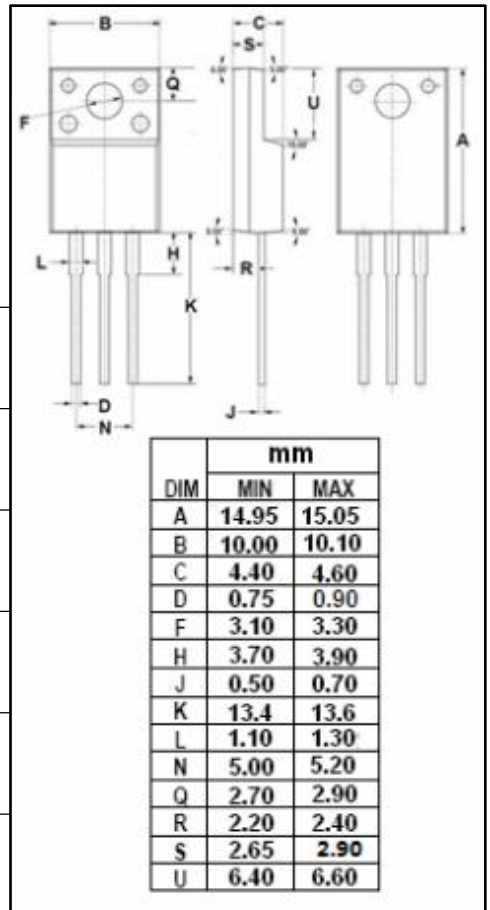
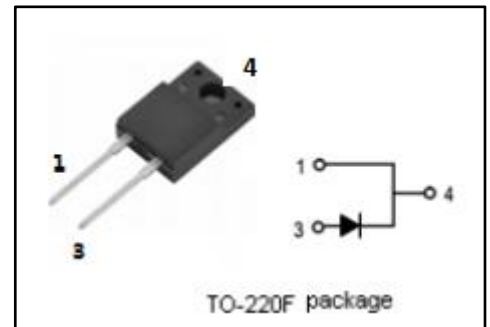
- 1200V blocking voltage
- 20mJ avalanche energy
- 12V(typical) peak transient overshoot voltage
- 135ns (typical) forward recovery time
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- This power rectifier is specifically designed for use as damper diode in horizontal deflection circuits for high and very high resolution monitors

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	1200	V
$I_{F(AV)}$	Average Rectified Forward Current	10	A
$I_{FSM}$	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	100	A
$T_J$	Junction Temperature	-65~150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^{\circ}\text{C}$



## Fast Recovery Rectifier

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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  $\mu$ s, Duty Cycle  $\leq 2\%$ )

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F^*$	Maximum Instantaneous Forward Voltage	$I_F=6.5\text{A}; T_j=25^{\circ}\text{C}$ $I_F=6.5\text{A}; T_j=125^{\circ}\text{C}$	2.2 2.0	V
$I_R^*$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=125^{\circ}\text{C}$ $V_R=V_{RWM}$	1000 100	$\mu$ A
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=1\text{A}; di/dt = 50\text{A}/\mu\text{s}$	175	ns

\*: Pulse test, Pulse width=300 $\mu$ s, duty cycle  $\leq 2\%$

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