

## Ultrafast Rectifier

## MUR1680FCT

## FEATURES

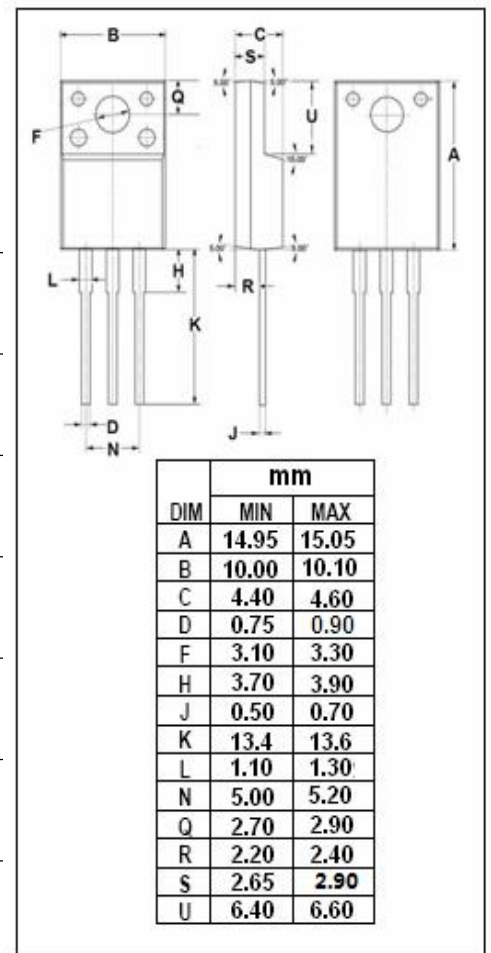
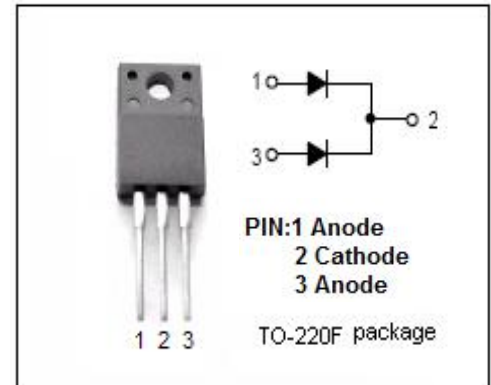
- Ultrafast with soft recovery
- Fast switching for high efficiency
- High current capability
- Low forward voltage drop
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Switching power supply
- Power switching circuits

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	800	V
$I_{F(AV)}$	Average Rectified Forward Current Per Leg Total device	8 16	A
$I_{FSM}$	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	120	A
$P_D$	Maximum power dissipation	75	W
$T_J$	Junction Temperature	-65~150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^{\circ}\text{C}$



## Fast Recovery Rectifier

## MUR1680CT

## 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  $\leq$  1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F=8\text{A}$	1.8	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_J=125^{\circ}\text{C}$ $V_R=V_{RWM}$	5 100	$\mu$ A
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=0.5\text{A}, I_R=1.0\text{A}$	75	ns

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