

**Ultrafast Rectifier**
**N-D92-02**
**FEATURES**

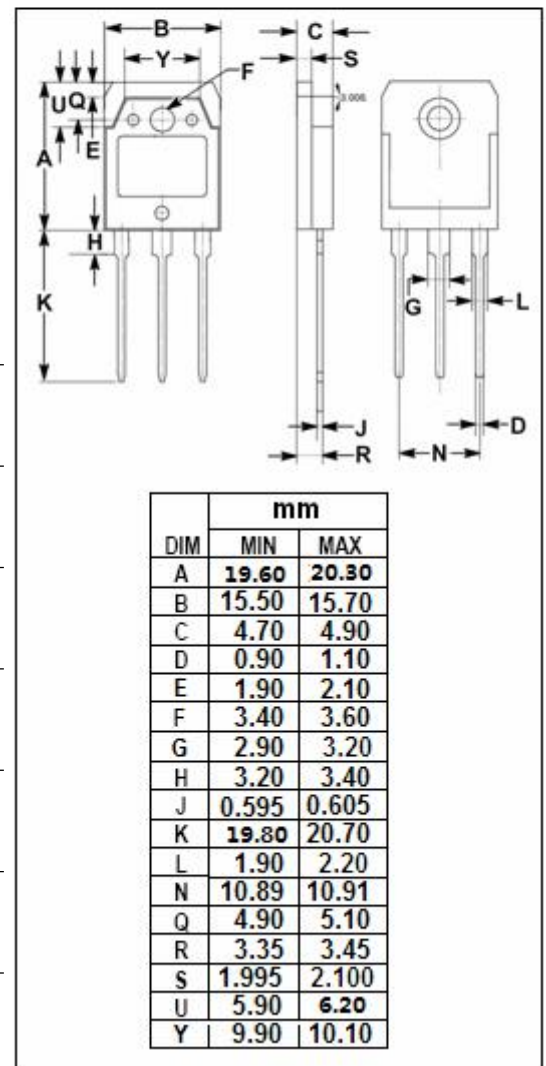
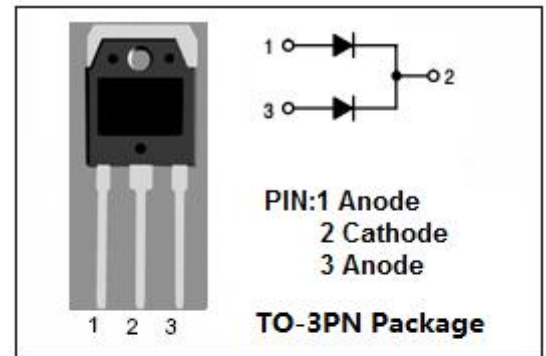
- Ultrafast recovery time
- Very low  $I_{RRM}$
- Very low  $Q_{rr}$
- Specified at operating conditions
- Designed and qualified for industrial level
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Switching mode power supplies
- UPS
- Free wheeling diodes
- Motor drives

**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	200	V
$I_{F(AV)}$	Average Rectified Forward Current Per Leg Total device	10 20	A
$I_{FSM}$	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	100	A
$P_D$	Maximum power dissipation	85	W
$T_J$	Junction Temperature	-55~150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



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**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{thj-c}$	Thermal Resistance, Junction to Case	1.5	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	TYP	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F=10A; T_j=25^{\circ}C$ $I_F=20A; T_j=25^{\circ}C$ $I_F=10A; T_j=125^{\circ}C$	0.9 1.0 0.8	0.95	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=125^{\circ}C$ $V_R=V_{RWM}$		250 15	$\mu$ A
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=10A; di/dt = -200A/\mu s$		21	ns

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