

Ultrafast Recovery Diode

EPU6006

FEATURES

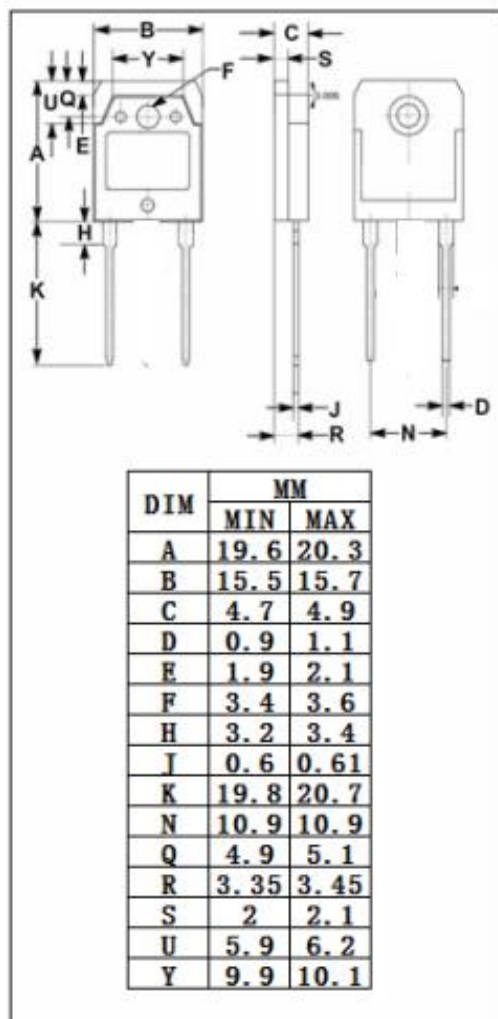
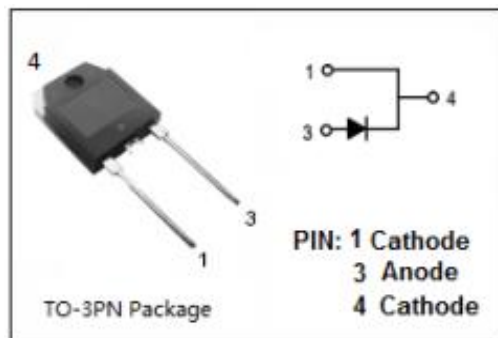
- Ultrafast recovery time
- Low forward voltage drop
- High efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- These devices are intended for use in the output rectification stage of SMPS, welding, UPS, DC/DC converters as well as freewheeling diodes in low voltage inverters and chopper motor drives.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM}	Peak Repetitive Reverse Voltage	600	V
$I_{F(AV)}$	Average Rectified Forward Current	60	A
I_{FSM}	Nonrepetitive Peak Surge Current $t=8.3\text{ms}$, sine wave	600	A
T_J	Junction Temperature	$-40\sim 150$	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	$-40\sim 150$	$^{\circ}\text{C}$



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	0.65	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=60\text{A}; T_j=25^{\circ}\text{C}$ $I_F=60\text{A}; T_j=150^{\circ}\text{C}$	1.5 1.3	V
I_R	Maximum Instantaneous Reverse Current	$V_R=600\text{V}; T_j=25^{\circ}\text{C}$ $V_R=600\text{V}; T_j=150^{\circ}\text{C}$	30 200	μ A
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.5\text{A}; I_R=1\text{A}; I_{rr}=0.25\text{A}$	60	ns

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