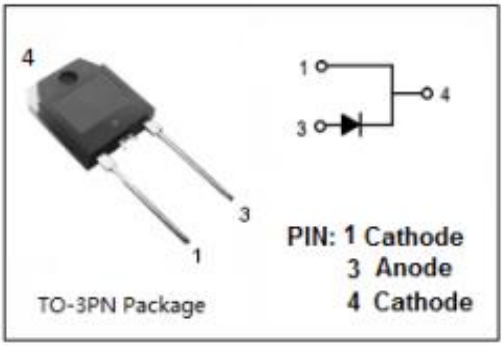
Ultrafast Recovery Diode

EPU6006

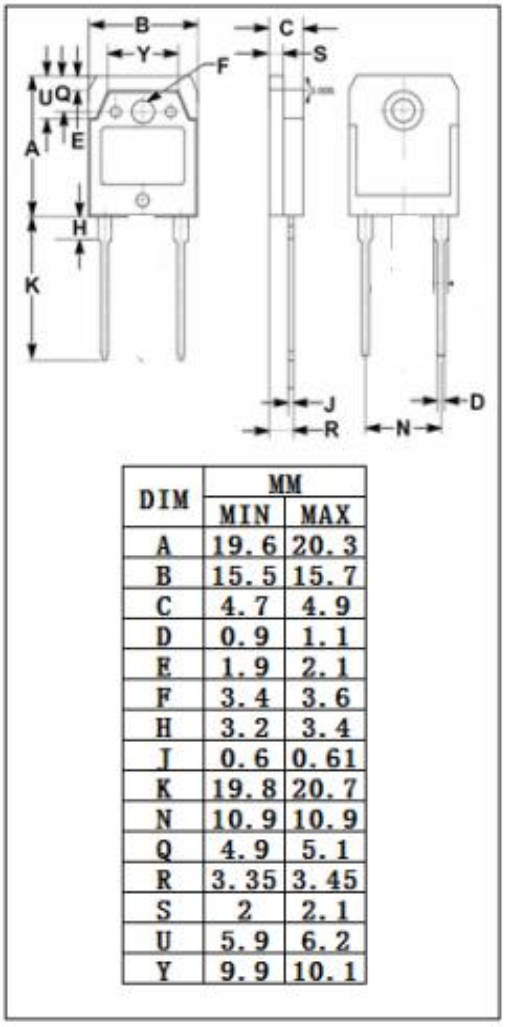


FEATURES

- 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.



DIM	MM	
	MIN	MAX
A	19.6	20.3
B	15.5	15.7
C	4.7	4.9
D	0.9	1.1
E	1.9	2.1
F	3.4	3.6
H	3.2	3.4
J	0.6	0.61
K	19.8	20.7
N	10.9	10.9
Q	4.9	5.1
R	3.35	3.45
S	2	2.1
U	5.9	6.2
Y	9.9	10.1

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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=8.3ms,sine wave	600	A
T_J	Junction Temperature	-40~150	℃
T_{stg}	Storage Temperature Range	-40~150	℃

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.65	℃/W

ELECTRICAL CHARACTERISTICS(T_a=25℃) (Pulse Test: Pulse Width=300 μ s,Duty Cycle≤2%)

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