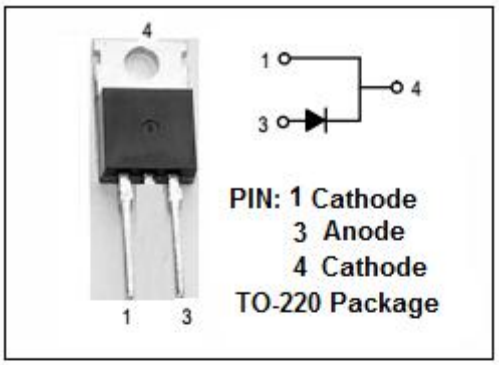
Ultrafast Rectifier

RURP3060

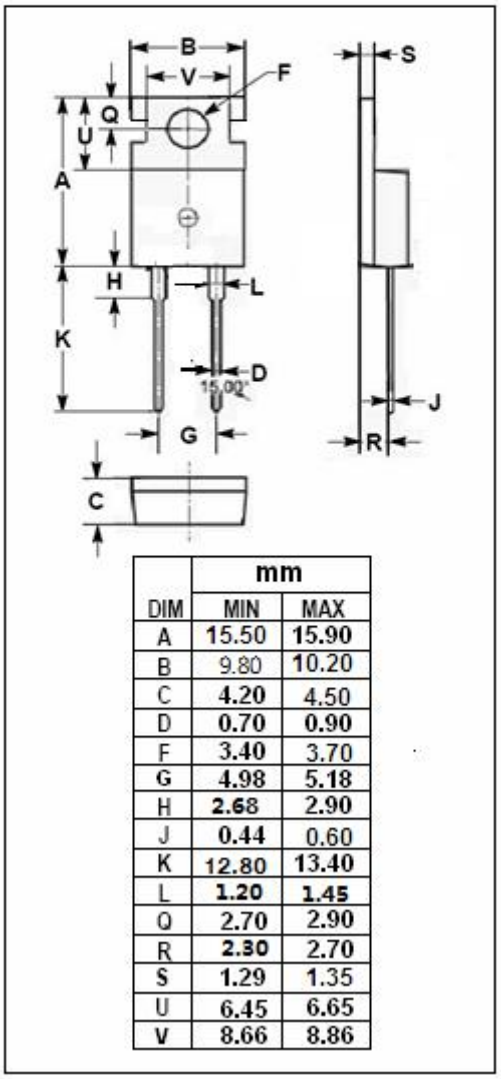


FEATURES

- Guarding for over voltage protection
- Metal of silicon rectifier,majority carrier conduction
- Low forward voltage,high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Rectifier in switch mode supplies



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	600	V
$I_{F(AV)}$	Average Rectified Forward Current	30	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
P_D	Maximum power dissipation	100	W
T_J	Junction Temperature	-40~175	℃
T_{stg}	Storage Temperature Range	-40~175	℃

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.2	℃/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 30A ;Tj=25℃ I_F= 30A ;Tj=150℃	1.5 1.3	V
I_R	Maximum Instantaneous Reverse Current	V_R= 600V; Tj=25℃ V_R= 600V; Tj=150℃	250 1000	μA
t_{rr}	Maximum Reverse Recovery Time	IF =1A;dI_F/dt = 100A/μs	55	ns