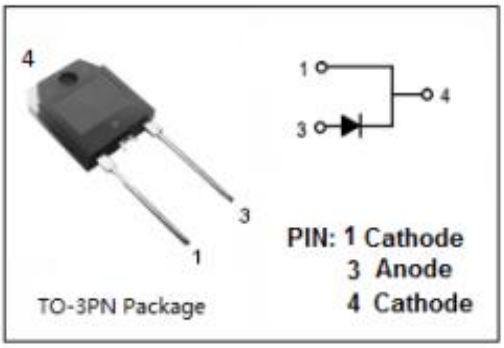
Ultrafast Rectifier

RURG3040,ISMUR3040

FEATURES

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

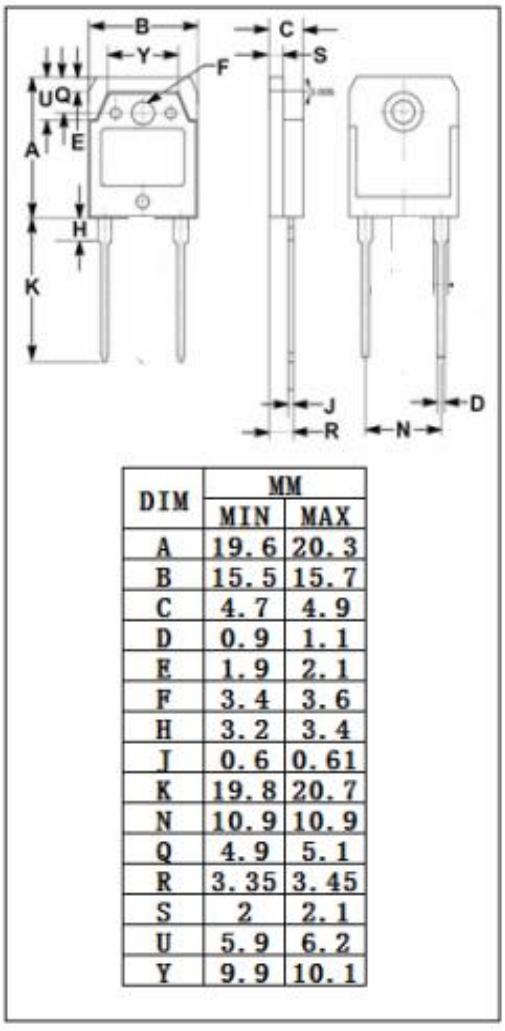


APPLICATIONS

- Switching power supply
- Rectifier in switch mode supplies

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	400	V
$I_{F(AV)}$	Average Rectified Forward Current Per Leg Total device	15 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	℃



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
I	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

Fast Recovery Rectifier RURG3040,ISMUR3040

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.5	℃/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= 15A ;Tj=25℃ I_F= 15A ;Tj=150℃	1.25 1.12	V
I_R	Maximum Instantaneous Reverse Current	V_R= $V_{RWM;}$Tj=25℃ V_R= $V_{RWM;}$Tj=150℃	10 500	μ A
t_{rr}	Maximum Reverse Recovery Time	IF =1A;	60	ns