

Ultra fast Rectifier

RHRP3060

FEATURES

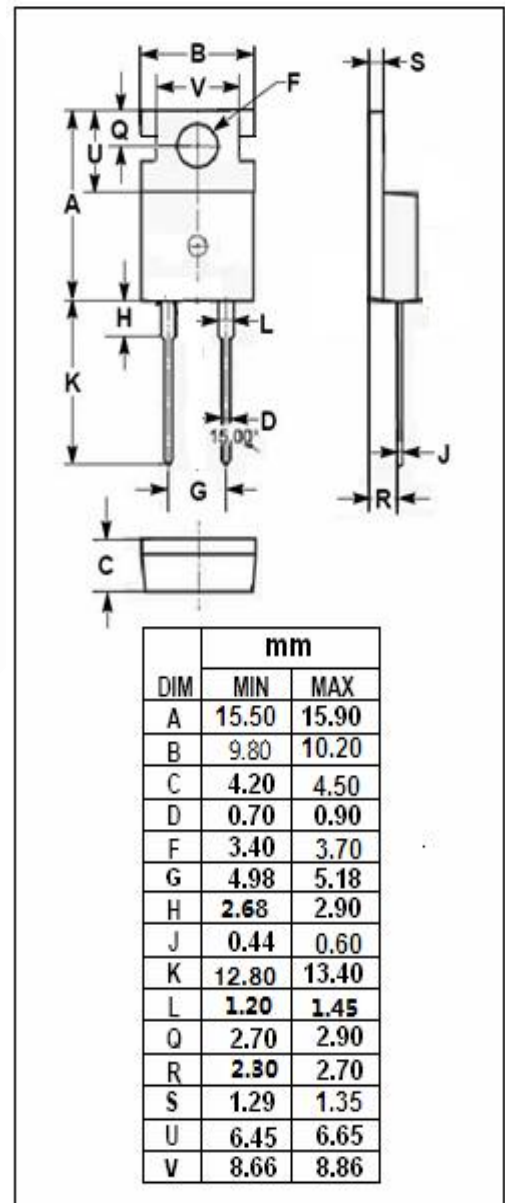
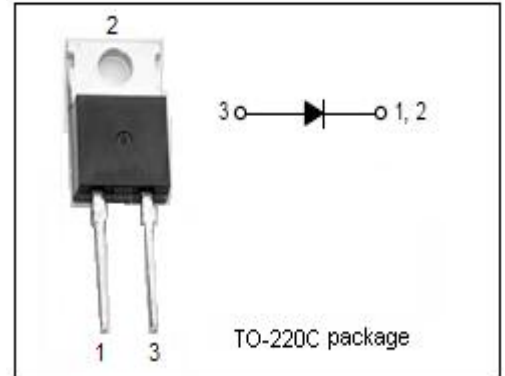
- With TO-220 packaging
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Guardring for overvoltage protection
- High surge capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- High frequency inverters
- Reverse battery protection
- Polarity protection applications

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _R RM V _R MS V _R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	600	V
I _F (AV)	Average Rectified Forward Current @T _c =120°C	30	A
I _{FRM}	Repetitive Peak Forward Current	70	A
I _{FSM}	Nonrepetitive Peak Surge Current	60Hz 325	A
P _t	Total Power Dissipation @T _c =104°C	125	W
T _j	Junction Temperature	-65~175	°C
T _{stg}	Storage Temperature Range	-65~150	°C



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THERMAL CHARACTERISTICS

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

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=30A; T_c=25^{\circ}C$ $I_F=30A; T_c=150^{\circ}C$	2.1 1.7	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RRM}; T_c=25^{\circ}C$ $T_c=125^{\circ}C$	0.25 1	mA
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.5A; dI_F/dt=-200A/\mu s$	40	ns