

Ultra-fast Rectifier

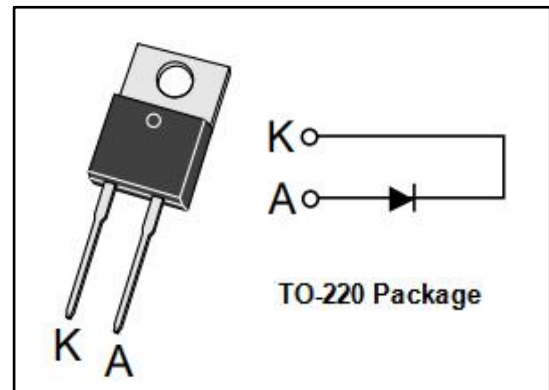
RHRP8120

FEATURES

- Super fast switching for high efficiency.
- Low reverse leakage.
- High forward surge current capability.
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Rectifier in switch mode supplies

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

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	1200	V
I _{F(AV)}	Average Rectified Forward Current	8	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	16	A
T _J	Junction Temperature	-40~175	°C
T _{stg}	Storage Temperature Range	-40~175	°C

THERMAL CHARACTERISTICS

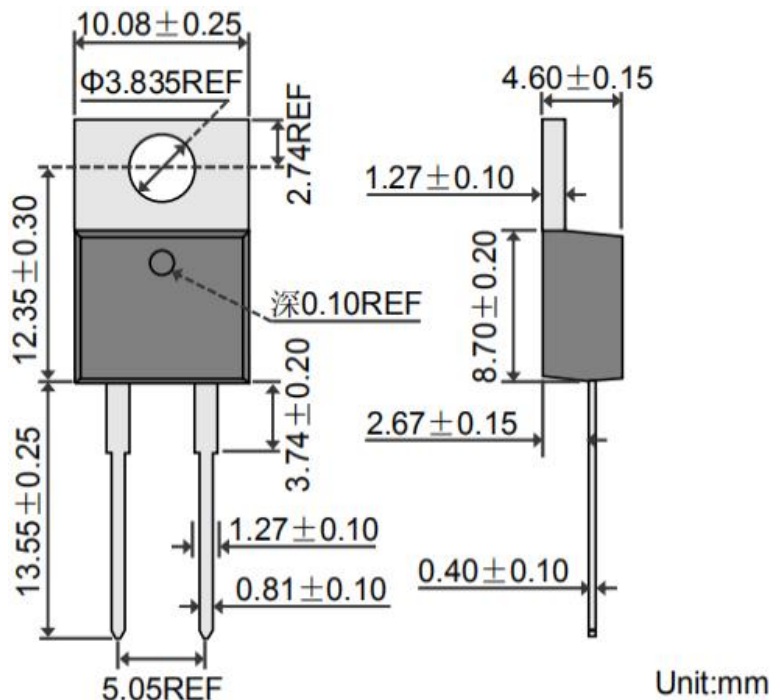
SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	2	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F^*	Maximum Instantaneous Forward Voltage	$I_F = 8\text{A}; T_j = 25^{\circ}\text{C}$ $I_F = 30\text{A}; T_j = 150^{\circ}\text{C}$	3.2 2.6	V
I_R^*	Maximum Instantaneous Reverse Current	$V_R = V_{RWM}; T_j = 25^{\circ}\text{C}$ $V_R = V_{RWM}; T_j = 150^{\circ}\text{C}$	100 500	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F = 1\text{A};$	55	ns

*:Pulse Test:Pulse width=300us,duty cycle $\leq 2.0\%$ **NOTICE:**

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