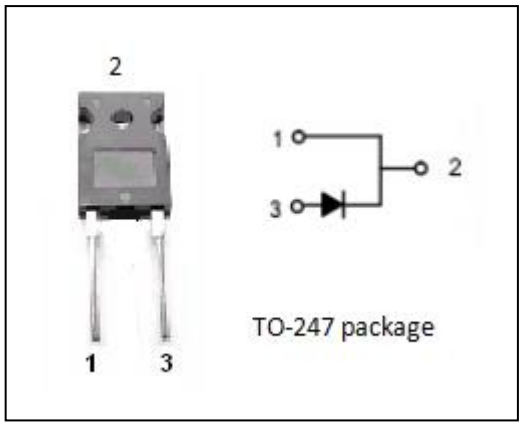
Ultra fast Rectifier RHRG30120

FEATURES

- High junction temperature capability
- Low forward voltage
- High current capability
- Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Switching power supply
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RMS} V_R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	1200	V
$I_{F(AV)}$	Average Rectified Forward Current @Tc=110℃	30	A
$I_{F(RMS)}$	RMS Forward Current	60	A
I_{FSM}	Nonrepetitive Peak Surge Current (60Hz single half sine-wave superimposed on rated load conditions)	300	A
T_J	Junction Temperature	-65~175	℃
T_{stg}	Storage Temperature Range	-65~175	℃

THERMAL CHARACTERISTICS

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

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 30A; Tc=25℃ I_F= 30A; Tc=150℃	3.2 2.6	V
I_R	Maximum Instantaneous Reverse Current	V_R= rated V_{RRM}; Tc=25℃ V_R= rated V_{RRM}; Tc=150℃	250 1000	μ A
t_{rr}	Maximum Reverse Recovery Time	I_F =1A; diF/dt=100A/ μ s	65	ns