

Ultrafast Rectifier

HFA32PA120C

FEATURES

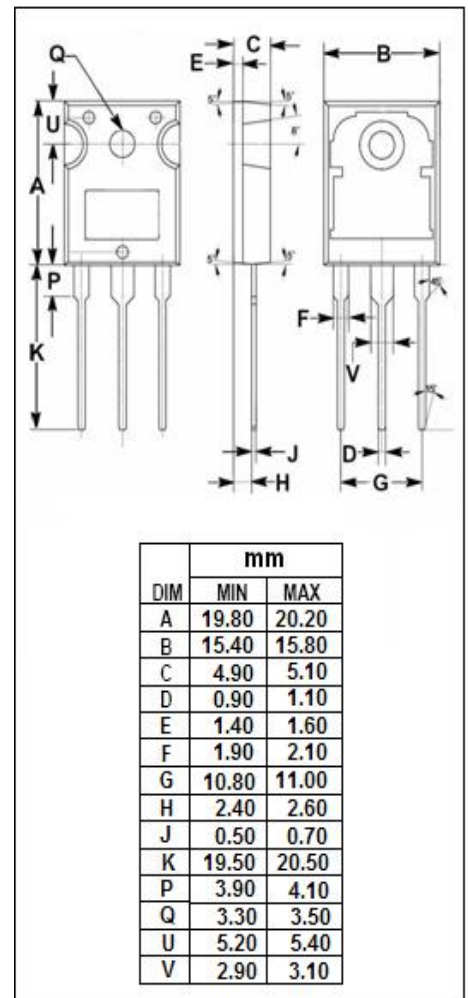
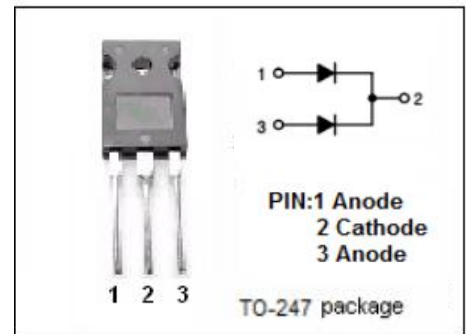
- Guarding for over voltage protection
- Dual rectifier construction, positive center tap
- Metal of silicon rectifier, majority carrier conduction
- Low forward voltage, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Rectifier in switch mode supplies

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

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	32	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	190	A
P_D	Maximum power dissipation	151	W
T_J	Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



Ultrafast Rectifier**HFA32PA120C****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	0.83	°C/W

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	$I_F = 16\text{A}; T_j = 25^{\circ}\text{C}$ $I_F = 16\text{A}; T_j = 125^{\circ}\text{C}$	3.0 2.7	V
I_R	Maximum Instantaneous Reverse Current	$V_R = V_{RRM}; T_j = 25^{\circ}\text{C}$ $V_R = 0.8V_{RRM}; T_j = 125^{\circ}\text{C}$	20 2	μA mA
t_{rr}	Maximum Reverse Recovery Time	$I_F = 1\text{A}; dI_F/dt = 200\text{ A}/\mu\text{s}, V_R = 30\text{ V}$	60	ns

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