

## Ultrafast Rectifier

## APT30D120B

## FEATURES

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

## APPLICATIONS

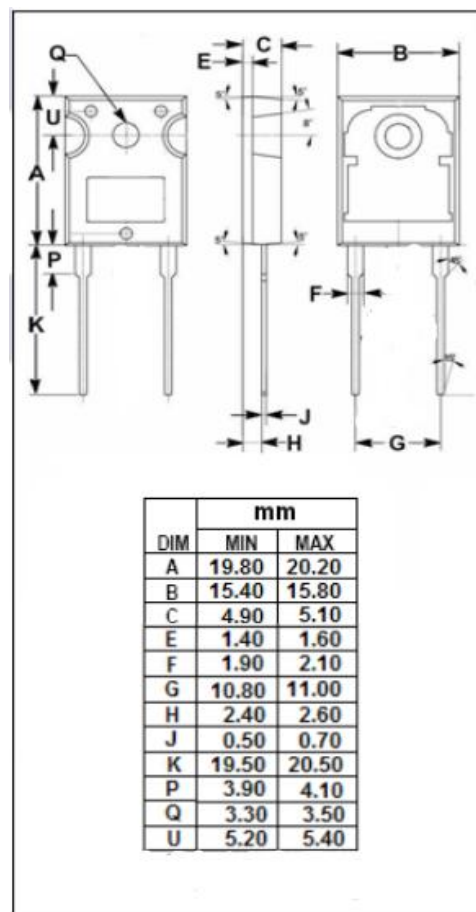
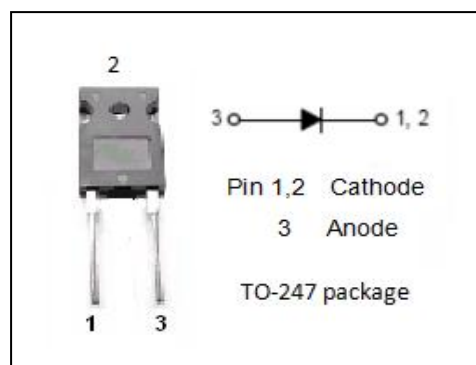
- These devices are ideally suited for HF welding, power converters and other applications where switching losses are not significant portion of the total losses.

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	30	A
$I_{FSM}$	Non-repetitive Peak Surge Current	210	A
$T_J$	Max. Junction Temperature	175	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~175	$^\circ\text{C}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.61	$^\circ\text{C/W}$



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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F = 30\text{A}$ ; $I_F = 30\text{A}$ ; $T_j = 125^{\circ}\text{C}$	2.5 2.3	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R = V_R$ Rated; $V_R = V_R$ Rated; $T_j = 150^{\circ}\text{C}$	250 500	$\mu\text{A}$ mA
$t_{rr}$	Maximum Reverse Recovery Time	$I_F = 1\text{A}$	60	ns

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