

Fast Recovery Rectifier

30APF04

FEATURES

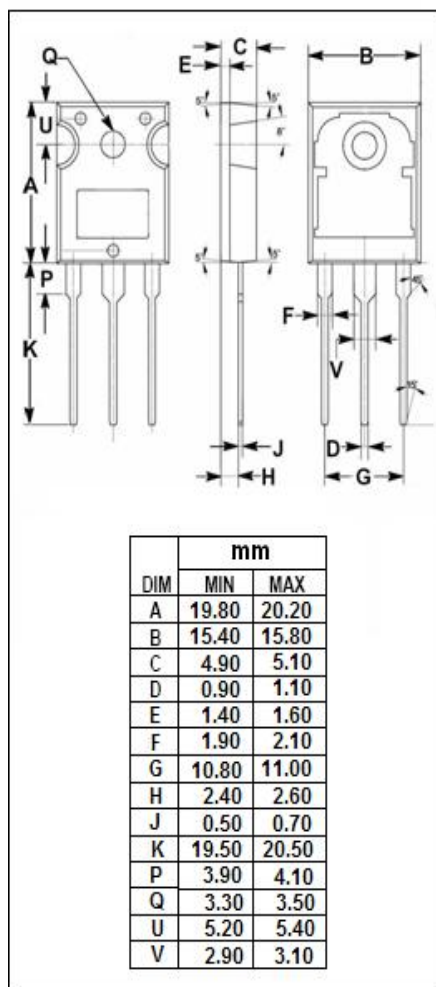
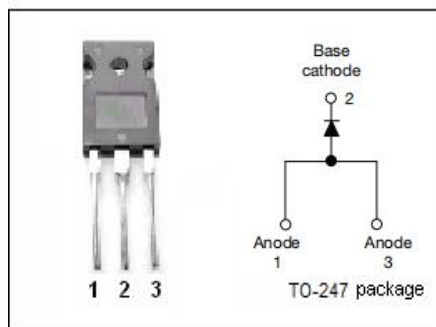
- Fast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- 150°C Operating Junction Temperature
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in switching power supplies, inverters and as free wheeling diodes.

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	200	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R)	30	A
I _{FSM}	Non-repetitive Peak Surge Current (Rated V _R applied)	270	A
T _J	Junction Temperature	-40~150	°C
T _{stg}	Storage Temperature Range	-40~150	°C



Fast Recovery Rectifier**30APF04****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.8	°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	Instantaneous Forward Voltage	$I_F = 30\text{A}$	1.41	V
I_R	Instantaneous Reverse Current	$V_{RRM} = 400\text{V}; T_j = 25^\circ\text{C}$	0.1	mA
		$V_{RRM} = 400\text{V}; T_j = 150^\circ\text{C}$	5	
t_{rr}	Reverse Recovery Time	$I_F = 1\text{A}; di/dt = 200\text{A}/\mu\text{s}$	60	ns

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