

Ultra fast Rectifier

FEP30JP

FEATURES

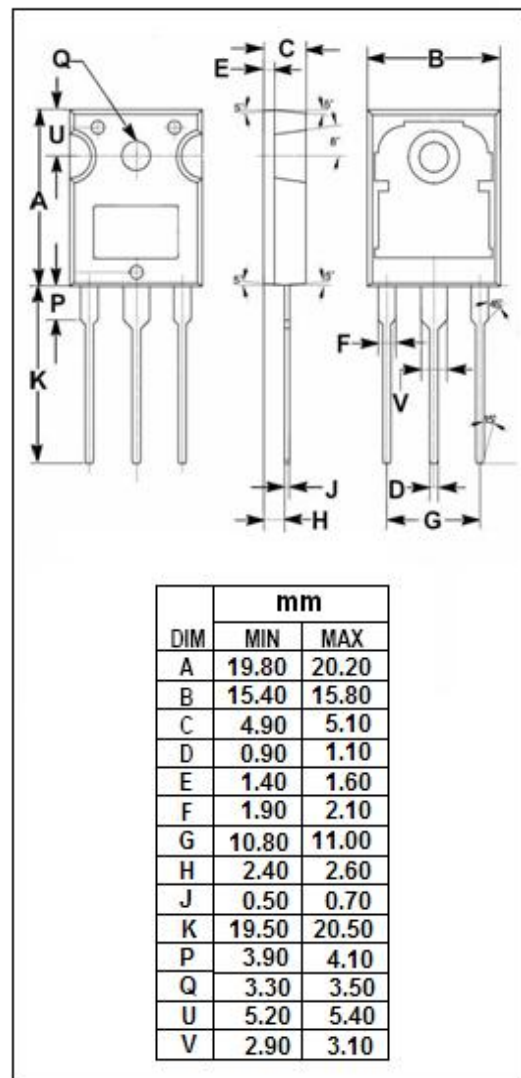
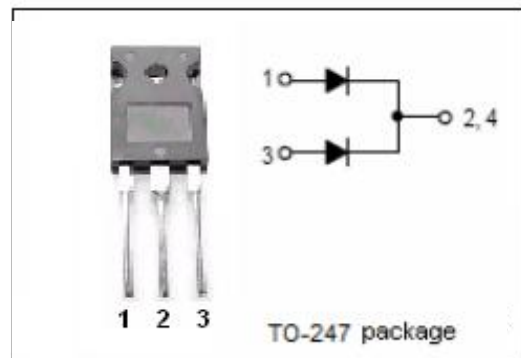
- With TO-247 packaging
- High junction temperature capability
- Low forward voltage
- High current capability
- Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RMS} V _R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	600	V
I _{F(AV)}	Average Rectified Forward Current @T _c =110°C	30	A
I _{FSM}	RMS Forward Current	60	A
I _{FSM}	Nonrepetitive Peak Surge Current (10ms single half sine-wave superimposed on rated load conditions)	300	A
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 15A$	1.5	V
I_R	Maximum Instantaneous Reverse Current	$V_R = \text{rated } V_{RRM}; T_j = 25^\circ C$ $V_R = \text{rated } V_{RRM}; T_j = 100^\circ C$	10 500	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F = 15A; I_R = 1.0A; I_{rr} = 0.25A$	50	ns

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