

Ultra fast Rectifier
FEP30JP
FEATURES

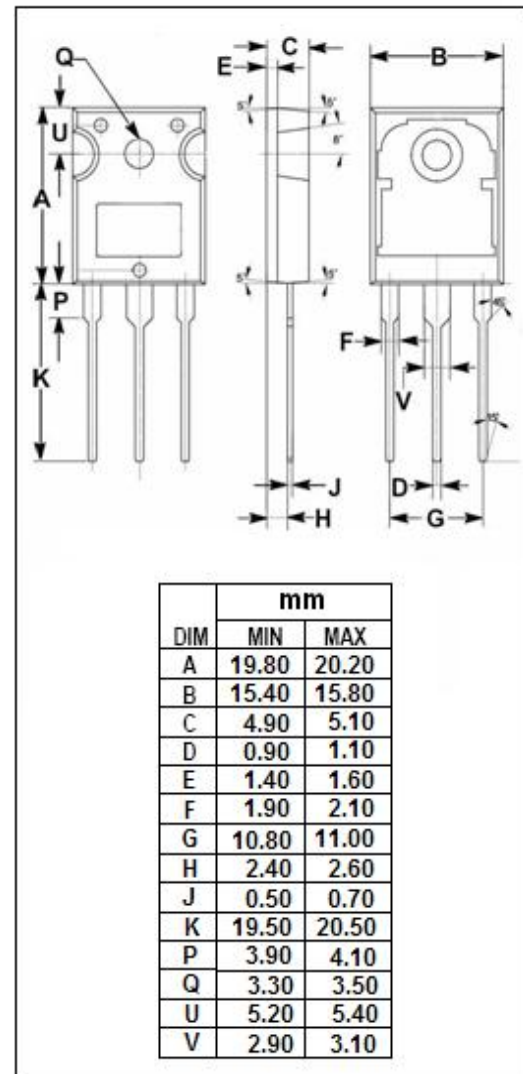
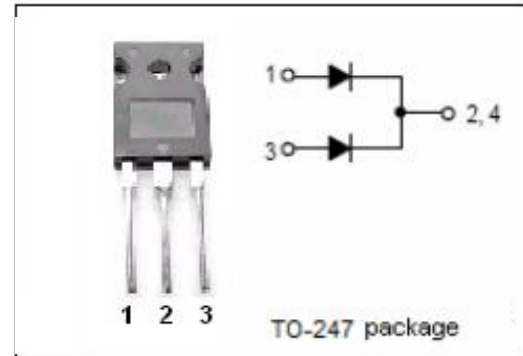
- With TO-247 packaging
- High junction temperature capability
- Low forward voltage
- High current capability
- Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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 ≤ 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 = rated V _{RRM} ; T _j = 25°C V _R = rated V _{RRM} ; T _j = 100°C	10 500	μ A
t _{rr}	Maximum Reverse Recovery Time	I _F =15A; I _R =1.0A; I _{rr} =0.25A	50	ns

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