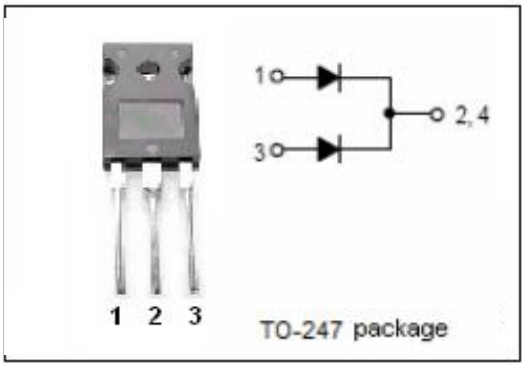
Ultra fast Rectifier FEP30JP

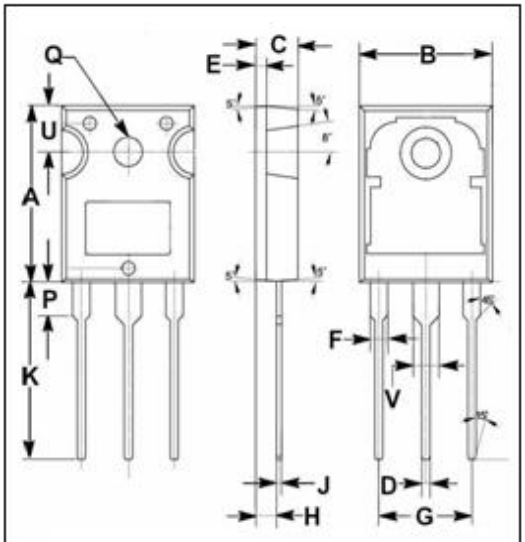
FEATURES

- 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



DIM	mm MIN	mm MAX
A	19.80	20.20
B	15.40	15.80
C	4.90	5.10
D	0.90	1.10
E	1.40	1.60
F	1.90	2.10
G	10.80	11.00
H	2.40	2.60
J	0.50	0.70
K	19.50	20.50
P	3.90	4.10
Q	3.30	3.50
U	5.20	5.40
V	2.90	3.10

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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 @Tc=110℃	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	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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THERMAL CHARACTERISTICS

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

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300μs,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}; Tj= 25℃ V_R= rated V_{RRM}; Tj= 100℃	10 500	μA
t_{rr}	Maximum Reverse Recovery Time	I_F =15A;I_R=1.0A;Irr=0.25A	50	ns