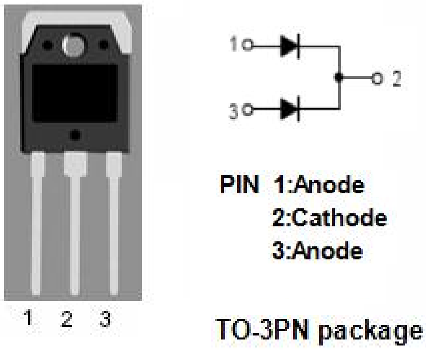
Fast Recovery Rectifier FEP30GP



PIN 1:Anode
2:Cathode
3:Anode

TO-3PN package

FEATURES

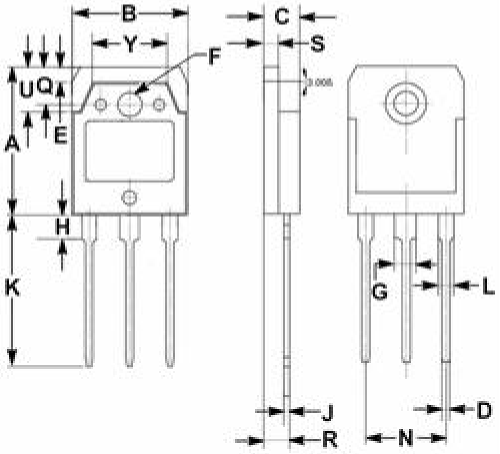
- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	400	V
$I_{F(AV)}$	Maximum average forward rectified current at T_C = 100℃	30	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	300	A
P_D	Maximum power dissipation	125	W
T_J	Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1	℃/W

ELECTRICAL CHARACTERISTICS(T_a=25℃) (Pulse Test: Pulse Width=300 μ s,Duty Cycle≤2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 15A ;Tj=25℃	1.3	V
I_R	Maximum Instantaneous Reverse Current	V_R= V_{RWM};Tj=125℃ V_R= V_{RWM}	500 10	μ A
t_{rr}	Maximum Reverse Recovery Time	IF =1A;	50	ns

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