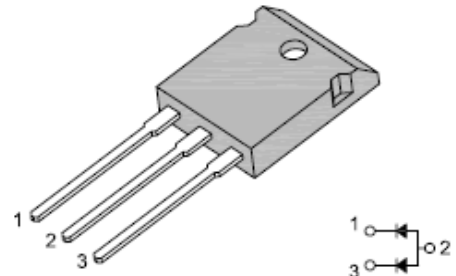


30A Fast Efficient Rectifiers

Features

- Glass passivated chip junction
- Low reverse leakage current
- High forward surge capability
- Low power loss, high efficiency
- Low stored charge majority carrier conduction
- Low forward voltage, high current capability
- RoHS Compliance



TO-3P



Mechanical Data

Case:	TO-3P, molded plastic body over passivated chips
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Plated leads solderable per MIL-STD-750, Method 2026
Polarity:	As marked
Weight:	0.22 ounce, 6.2 gram

Maximum Ratings and Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	FEN30FP	FEN30GP	FEN30HP	FEN30JP	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	300	400	500	600	V	
V_{RMS}	Maximum RMS Voltage	210	280	350	420	V	
V_{DC}	Maximum DC Blocking Voltage	300	400	500	600	V	
I_{F(AV)}	Maximum Average Forward Rectified Current	30				A	
I_{FSM}	Peak Forward Surge Current per leg	250				A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)

30A Fast Efficient Rectifiers

FEN30FP - FEN30JP

Symbol	Description	FEN30FP	FEN30GP	FEN30HP	FEN30JP	Unit	Conditions
V_F	Maximum Instantaneous Forward Voltage per leg	1.30		1.50		V	I _F =15A, T _C =25° C
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage per leg	10				μA	T _C =25° C
		700					T _C =125° C
T_{rr}	Typical Reverse Recovery Time per leg	50				nS	I _F =0.5A, I _R =1A, I _{rr} =0.25A
C_J	Typical Junction Capacitance per leg	150		120		pF	V _R =4V, f=1MHz
T_J,T_{STG}	Operating and Storage Junction Temperature Range	-65 to +150				° C	

Typical Characteristics Curves

Fig.1-Forward Current Derating Curve

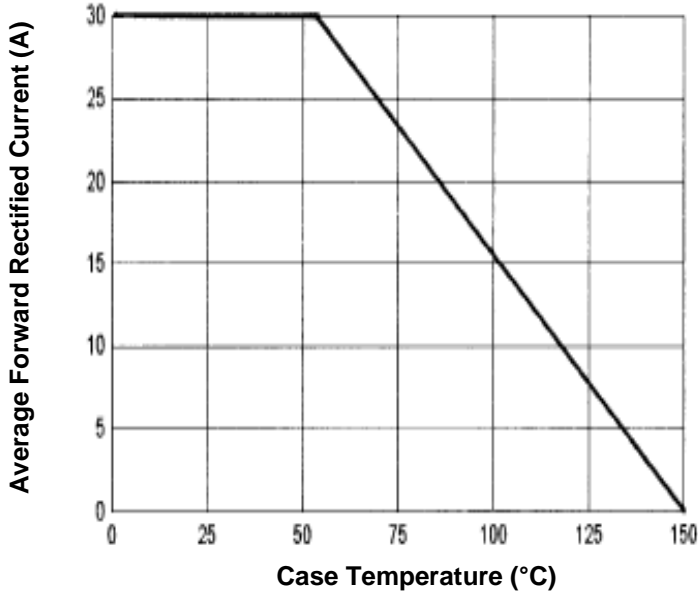
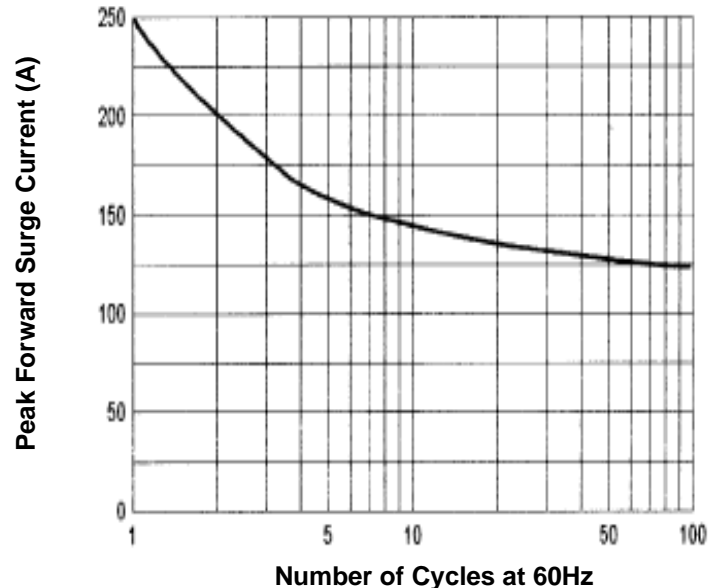


Fig.2-Max. Non-Repetitive Peak Forward Surge Current per leg



30A Fast Efficient Rectifiers

FEN30FP - FEN30JP

Fig.3- Typical Instantaneous Forward Characteristics per leg

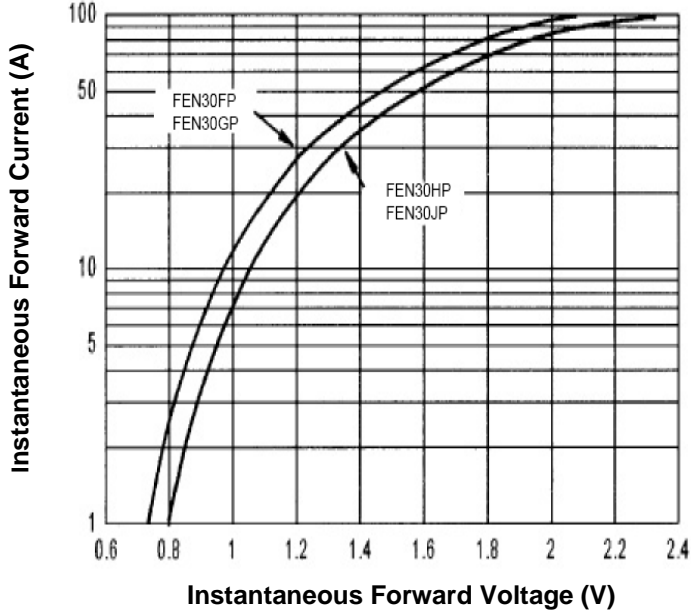


Fig.4-Typical Reverse Characteristics per leg

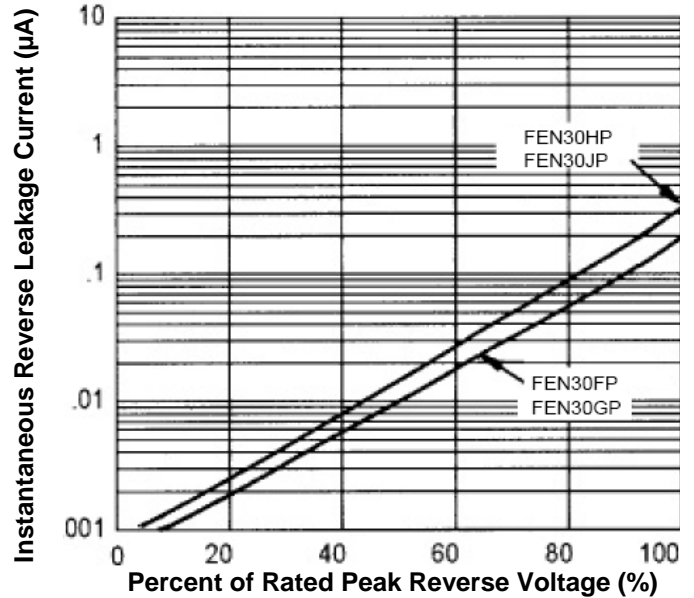
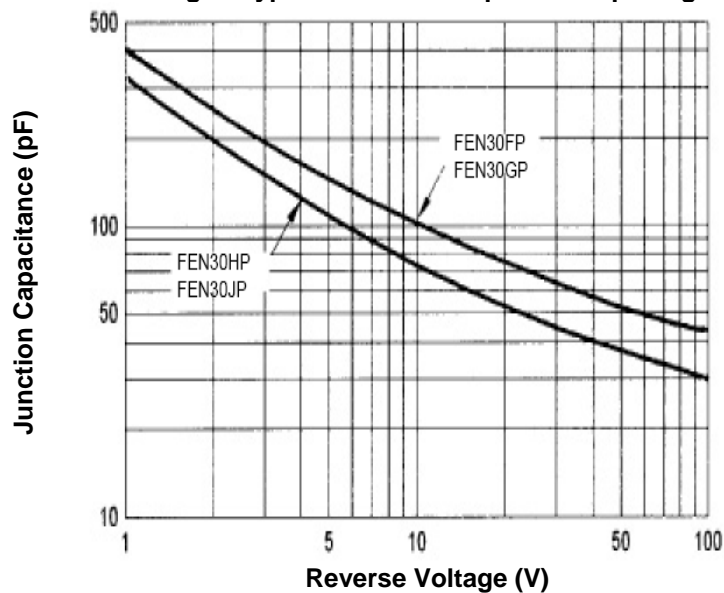


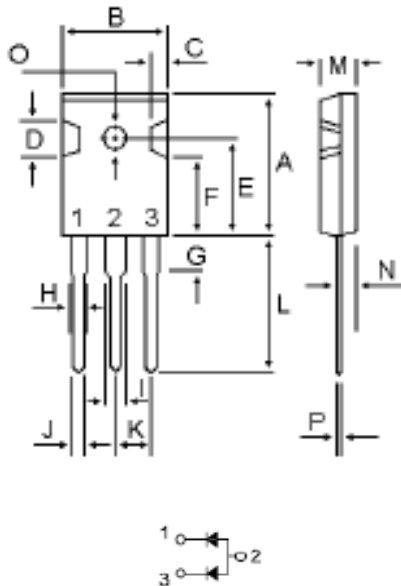
Fig.5- Typical Junction Capacitance per leg



30A Fast Efficient Rectifiers

FEN30FP - FEN30JP

Dimensions in mm



DIM	MILLIMETERS	
	MIN	MAX
A	20.63	22.38
B	15.38	16.20
C	1.90	2.70
D	5.10	6.10
E	14.81	15.22
F	11.72	12.84
G	4.20	4.50
H	1.82	2.46
I	2.92	3.23
J	0.89	1.53
K	5.26	5.66
L	18.50	21.50
M	4.68	5.36
N	2.40	2.80
O	3.25	3.65
P	0.55	0.70

TO-3P

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