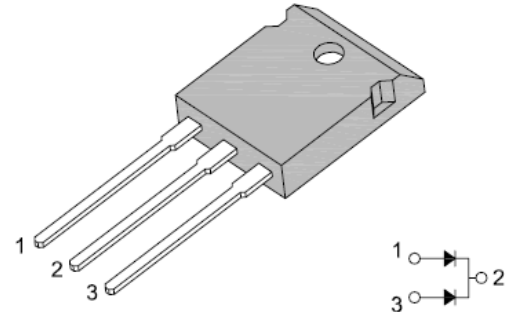


30A Fast Efficient Rectifiers

Features

- Glass passivated chip junction
- Ultrafast recovery time
- Low switching losses, high efficiency
- Low thermal resistance
- High forward surge 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	FEP 30AP	FEP 30BP	FEP 30CP	FEP 30DP	FEP 30FP	FEP 30GP	FEP 30HP	FEP 30JP	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	150	200	300	400	500	600	V	
V_{RMS}	Maximum RMS Voltage	35	70	105	140	210	280	350	420	V	
V_{DC}	Maximum DC Blocking Voltage	50	100	150	200	300	400	500	600	V	
I_{F(AV)}	Maximum Average Forward Rectified Current	30								A	$T_C=100^{\circ}\text{C}$
I_{FSM}	Peak Forward Surge Current per leg	300								A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
V_F	Maximum Instantaneous Forward Voltage per leg	0.95				1.3		1.5		V	$I_F=15.0\text{A}$

30A Fast Efficient Rectifiers

FEP30AP - FEP30JP

Symbol	Description	FEP 30AP	FEP 30BP	FEP 30CP	FEP 30DP	FEP 30FP	FEP 30GP	FEP 30HP	FEP 30JP	Unit	Conditions
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	10								μA	T _C =25° C
		500									T _C =100° C
T_{rr}	Typical Reverse Recovery Time per leg	35				50				nS	I _F =0.5A, I _R =1A, I _{rr} =0.25A
C_J	Typical Junction Capacitance per leg	175						145		pF	V _R =4V, f=1MHz
R_{thJC}	Typical Thermal Resistance from Junction to Case per leg	1.0								° C/W	Note 1
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150								° C	

Note: 1. Thermal resistance from junction to case per diode mounted on heatsink.

Typical Characteristics Curves

Fig.1-Forward Current Derating Curve

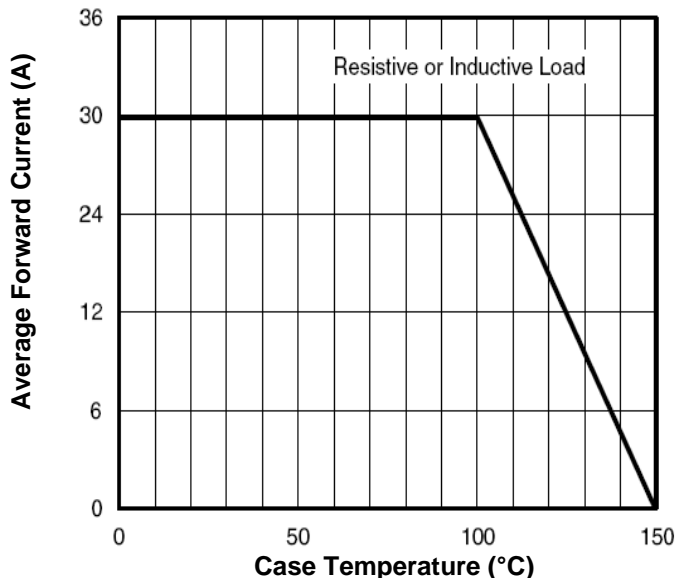
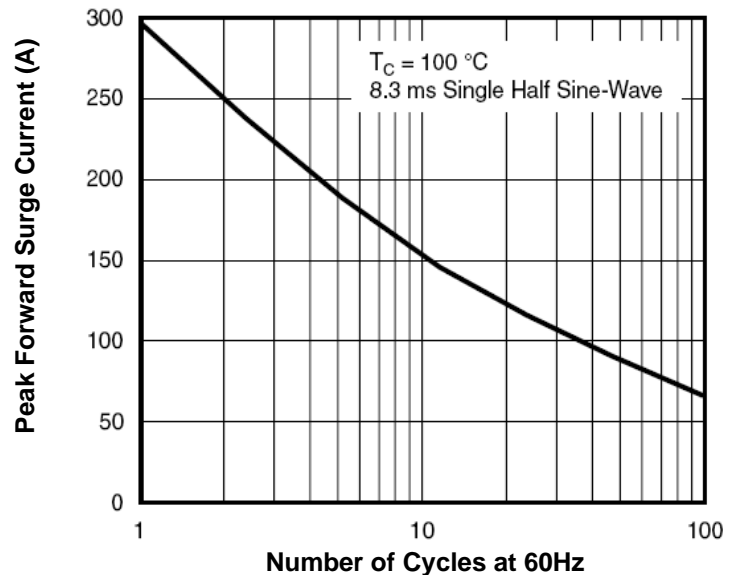


Fig.2-Max. Non-Repetitive Peak Forward Surge Current per leg



30A Fast Efficient Rectifiers

FEP30AP - FEP30JP

Fig.3- Typical Instantaneous Forward Characteristics per leg

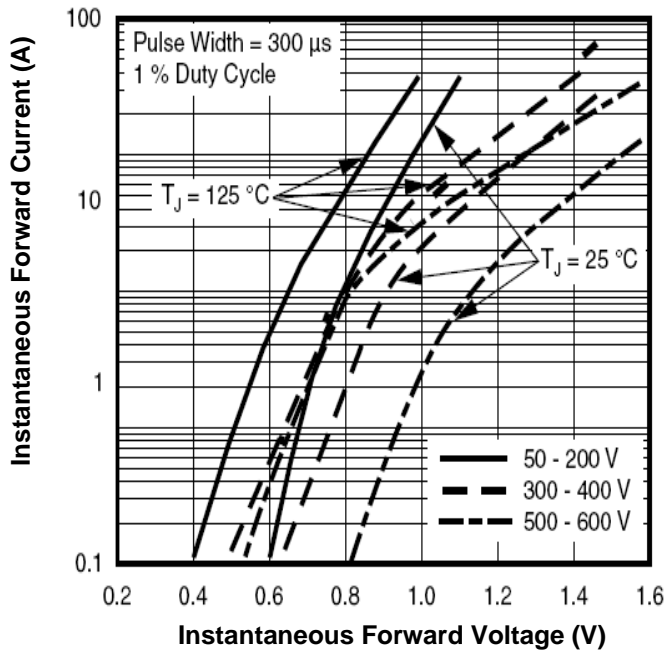


Fig.4-Typical Reverse Characteristics per leg

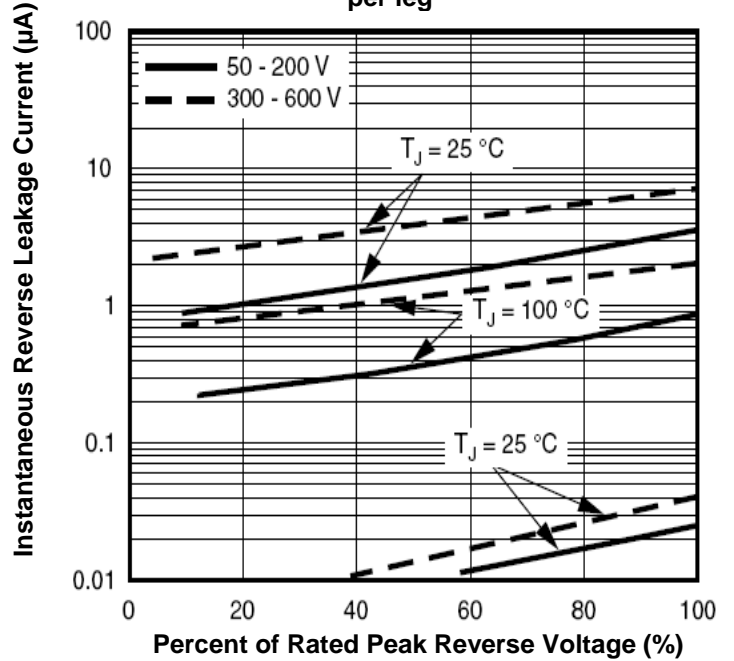
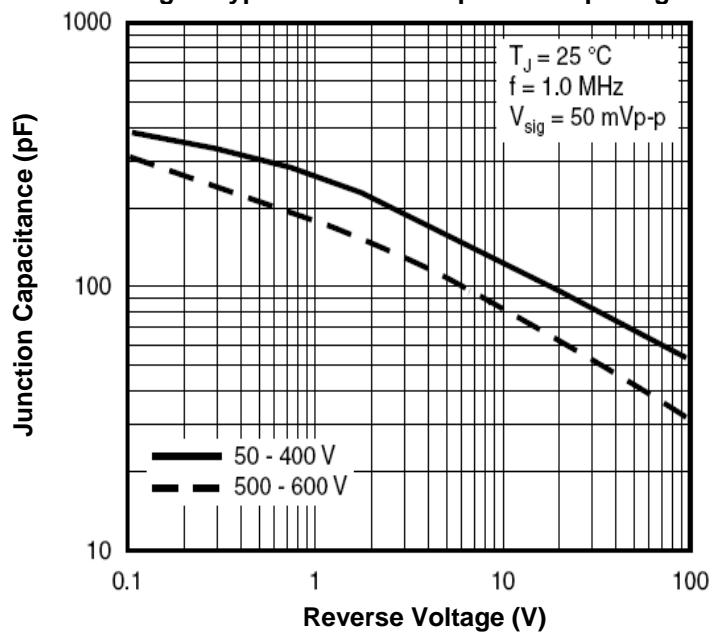


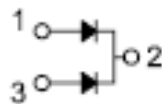
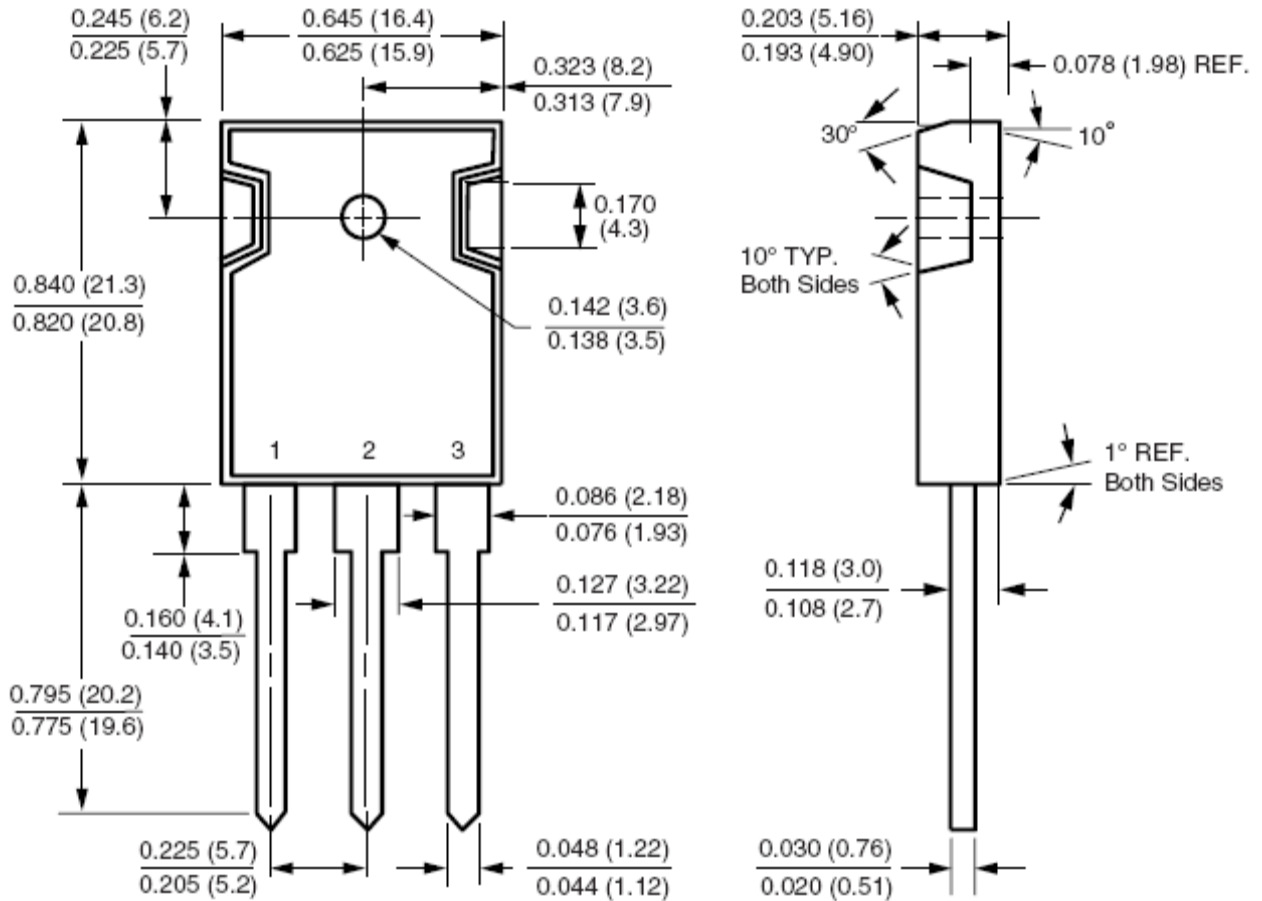
Fig.5- Typical Junction Capacitance per leg



30A Fast Efficient Rectifiers

FEP30AP - FEP30JP

Dimensions in inches (mm)



TO-3P

30A Fast Efficient Rectifiers

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