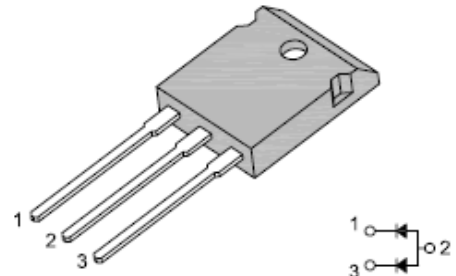


## 30A Fast Efficient Rectifiers

### 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

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

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

Symbol	Description	FEN30AP	FEN30BP	FEN30CP	FEN30DP	Unit	Conditions
<b>V<sub>RRM</sub></b>	Maximum Repetitive Peak Reverse Voltage	50	100	150	200	V	
<b>V<sub>RMS</sub></b>	Maximum RMS Voltage	35	70	105	140	V	
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	50	100	150	200	V	
<b>I<sub>F(AV)</sub></b>	Maximum Average Forward Rectified Current	30				A	
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current per leg	300				A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)

# 30A Fast Efficient Rectifiers

## FEN30AP - FEN30DP

Symbol	Description	FEN30AP	FEN30BP	FEN30CP	FEN30DP	Unit	Conditions
<b>V<sub>F</sub></b>	Maximum Instantaneous Forward Voltage per leg	0.975				V	I <sub>F</sub> =15A, T <sub>C</sub> =25° C
<b>I<sub>R</sub></b>	Maximum DC Reverse Current at Rated DC Blocking Voltage per leg	10				μA	T <sub>C</sub> =25° C
		500					T <sub>C</sub> =150° C
<b>T<sub>rr</sub></b>	Typical Reverse Recovery Time per leg	35				nS	I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>rr</sub> =0.25A
<b>C<sub>J</sub></b>	Typical Junction Capacitance per leg	250				pF	V <sub>R</sub> =4V, f=1MHz
<b>T<sub>J</sub>,T<sub>stg</sub></b>	Operating and Storage Junction Temperature Range	-65 to +150				° C	

### Typical Characteristics Curves

Fig.1-Forward Current Derating Curve

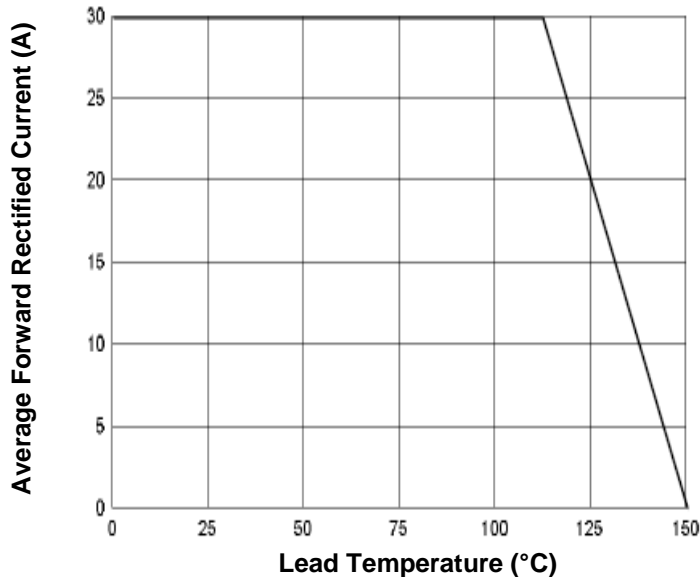
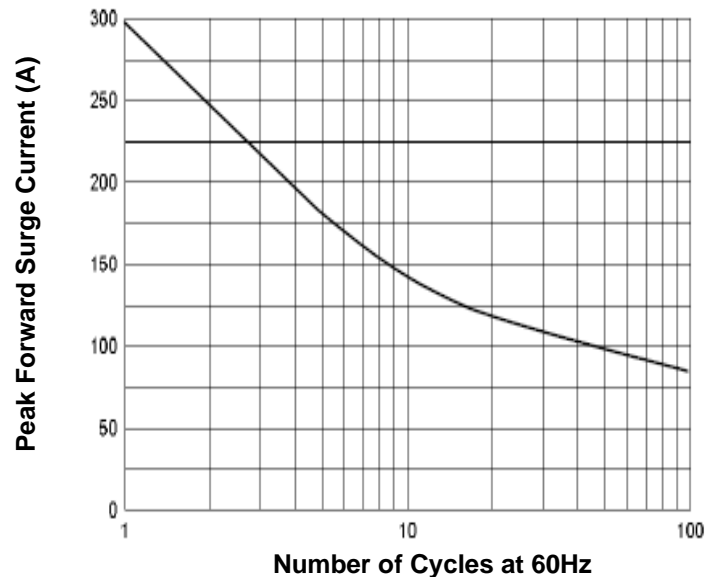


Fig.2-Max. Non-Repetitive Peak Forward Surge Current per leg



# 30A Fast Efficient Rectifiers

## FEN30AP - FEN30DP

Fig.3- Typical Instantaneous Forward Characteristics per leg

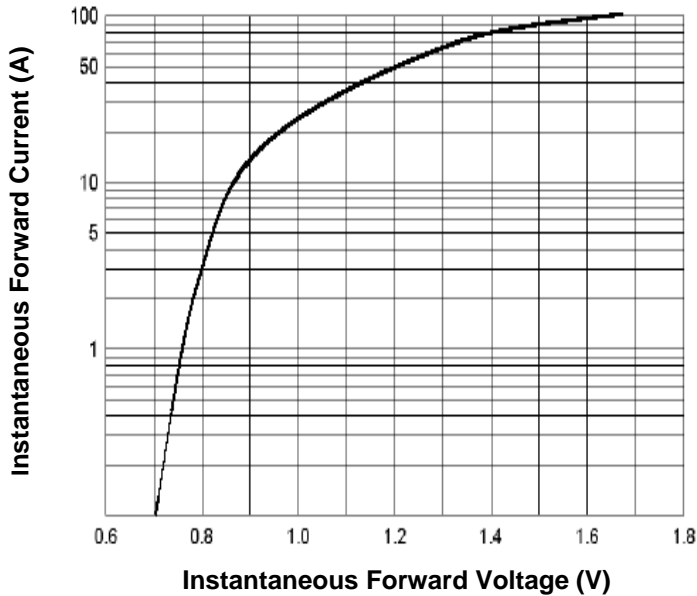


Fig.4-Typical Reverse Characteristics per leg

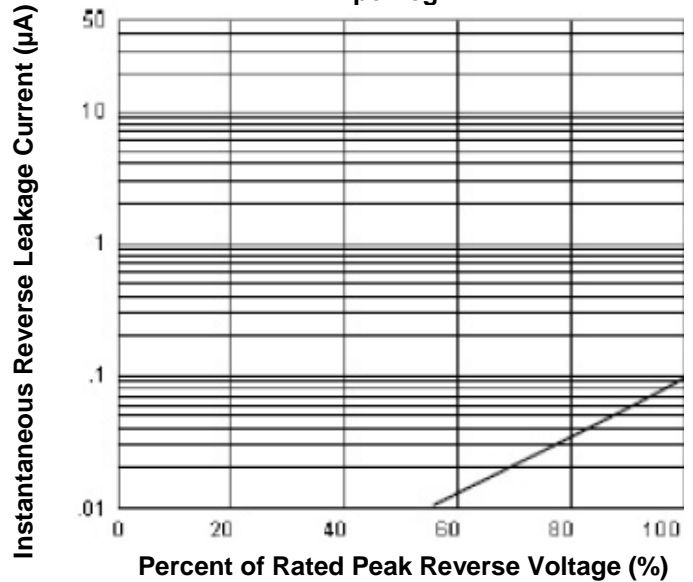
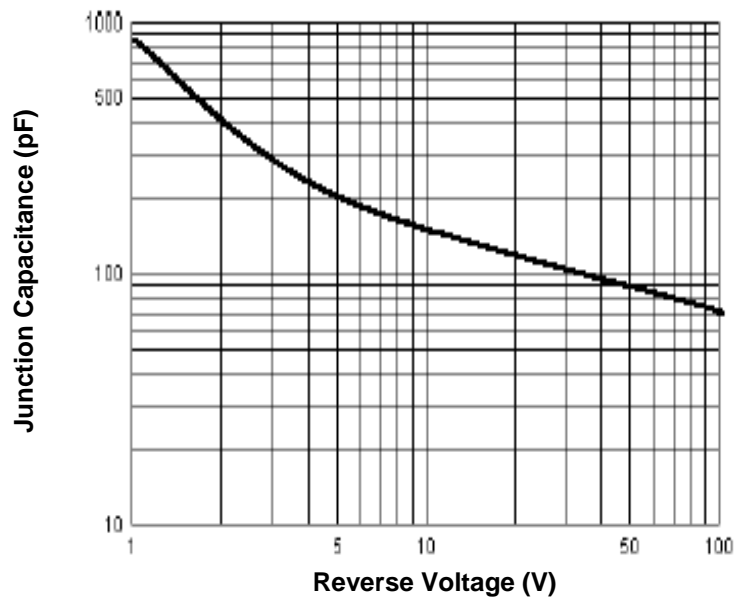


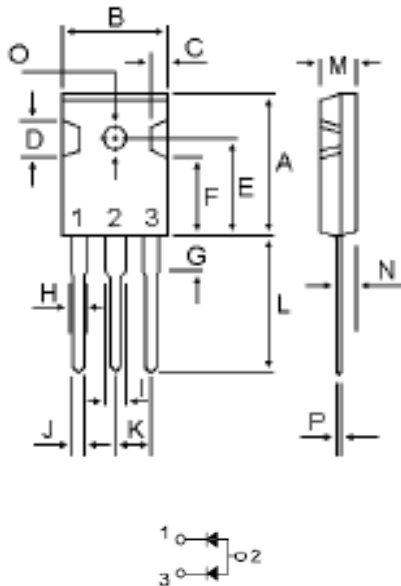
Fig.5- Typical Junction Capacitance per leg



# 30A Fast Efficient Rectifiers

## FEN30AP - FEN30DP

### 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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