



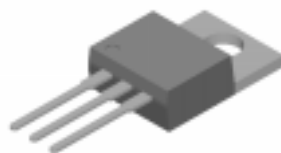
Discrete POWER & Signal  
Technologies

FEP16AT - FEP16JT

## FEP16AT - FEP16JT

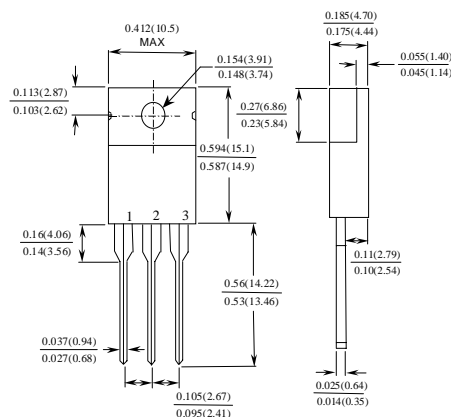
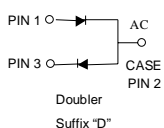
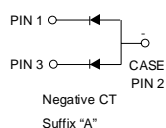
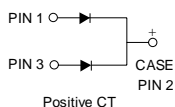
### Features

- Low forward voltage drop.
- High surge current capacity.
- High current capability.
- High reliability.



TO-220AB

Dimensions are in: inches (mm)



## 16 Ampere Glass Passivated Super Fast Rectifiers

### Absolute Maximum Ratings\*

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value	Units
$I_O$	Average Rectified Current .375 " lead length @ $T_A = 100^\circ\text{C}$	16	A
$I_{F(\text{surge})}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	200	A
$P_D$	Total Device Dissipation Derate above $25^\circ\text{C}$	8.33 66	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	15	$^\circ\text{C/W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	2.2	$^\circ\text{C/W}$
$T_{\text{stg}}$	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-65 to +150	$^\circ\text{C}$

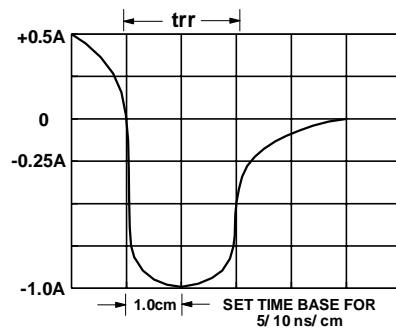
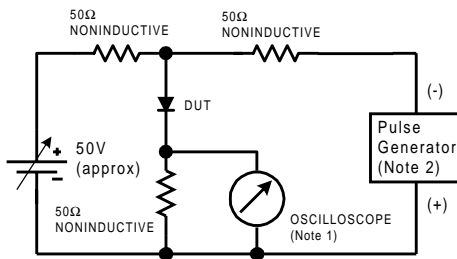
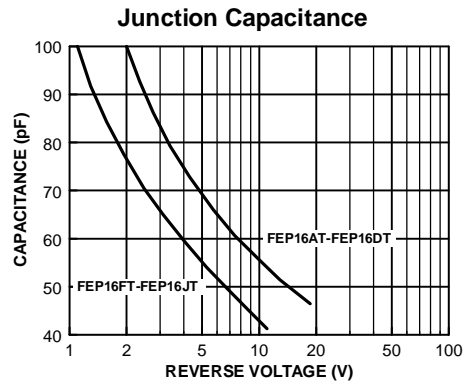
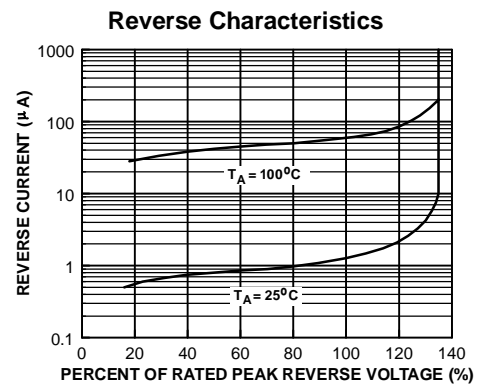
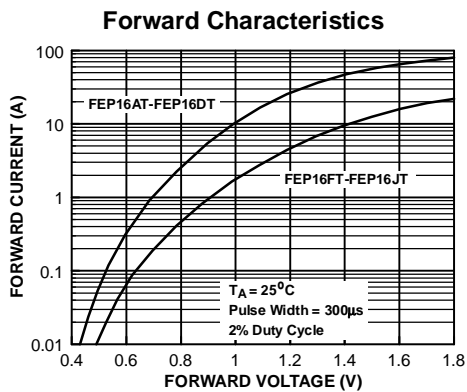
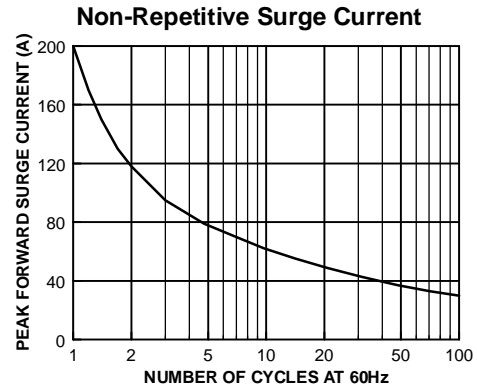
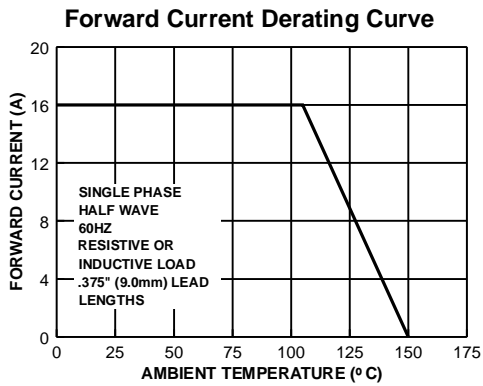
\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

Parameter	Device								Units
	16AT	16BT	16CT	16DT	16FT	16GT	16HT	16JT	
Peak Repetitive Reverse Voltage	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	35	70	105	140	210	280	350	420	V
DC Blocking Voltage (Rated V <sub>R</sub> )	50	100	150	200	300	400	500	600	V
Maximum Reverse Current @ rated V <sub>R</sub> T <sub>A</sub> = 25°C T <sub>A</sub> = 100°C	10 500								μA μA
Maximum Reverse Recovery Time I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>RR</sub> = 0.25 A	35				50				nS
Maximum Forward Voltage @ 8.0A	0.95				1.3		1.5		V
Typical Junction Capacitance V <sub>R</sub> = 4.0. f = 1.0 MHz	85						60		pF

## Typical Characteristics



Reverse Recovery Time Characteristic and Test Circuit Diagram

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