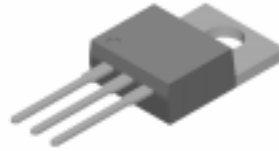


FEP16AT - FEP16JT

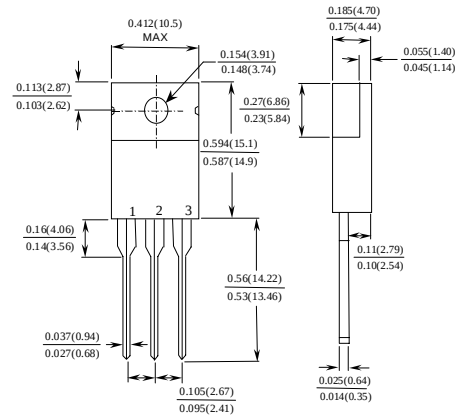
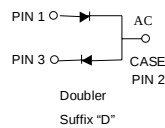
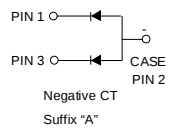
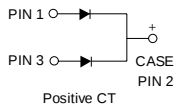
Features

- 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°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_{stg}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +150	$^\circ\text{C}$

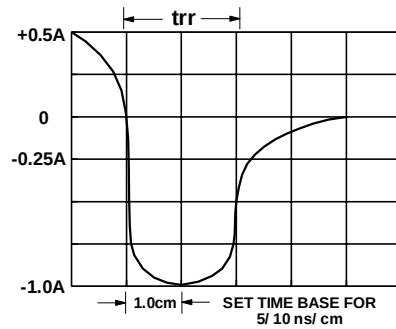
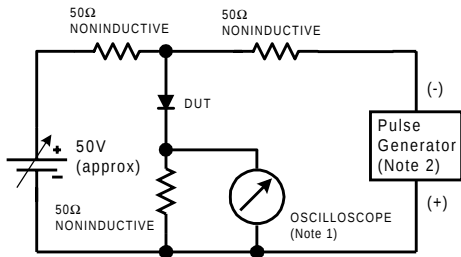
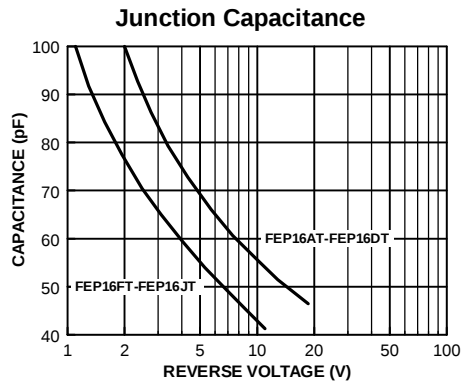
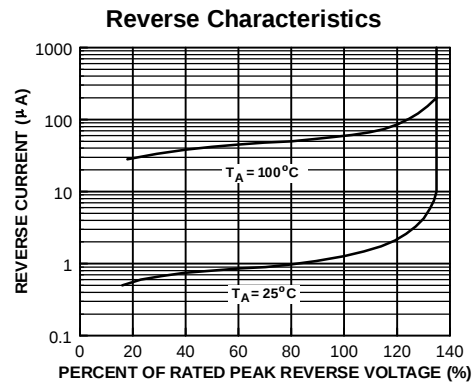
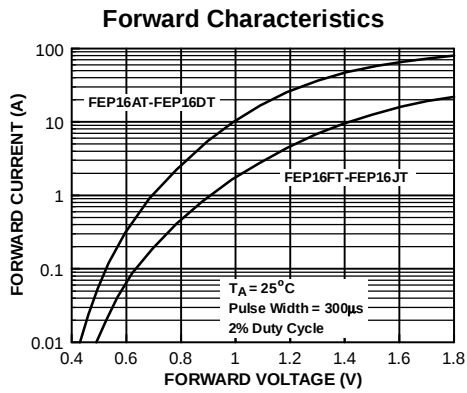
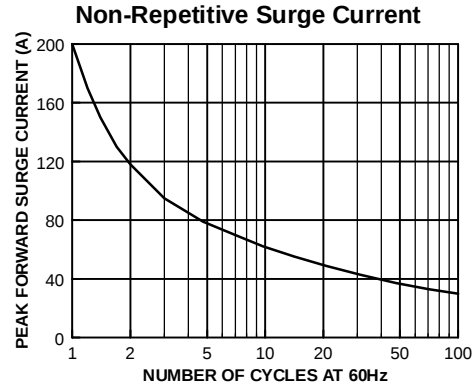
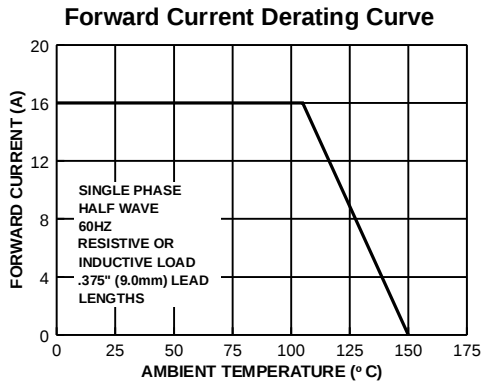
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

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 _R)	50	100	150	200	300	400	500	600	V
Maximum Reverse Current @ rated V _R T _A = 25°C T _A = 100°C	10 500								μA μA
Maximum Reverse Recovery Time I _F = 0.5 A, I _R = 1.0 A, I _{RR} = 0.25 A	35				50				nS
Maximum Forward Voltage @ 8.0A	0.95				1.3		1.5		V
Typical Junction Capacitance V _R = 4.0. f = 1.0 MHz	85						60		pF

Typical Characteristics



Reverse Recovery Time Characteristic and Test Circuit Diagram

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Definition of Terms

Datasheet Identification	Product Status	Definition
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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