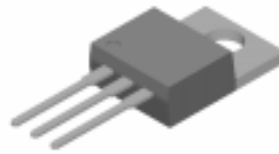


FEP16AT - FEP16JT

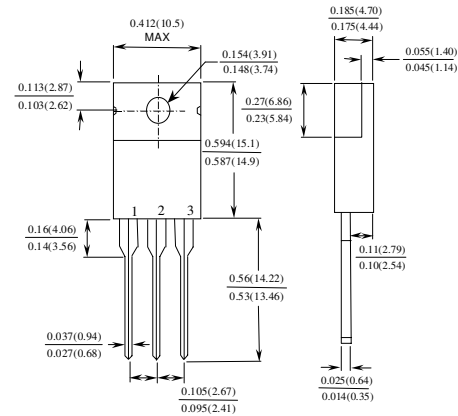
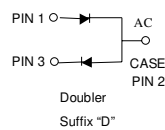
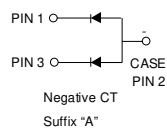
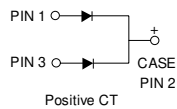
Features

- 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	$^\circ\text{C}$

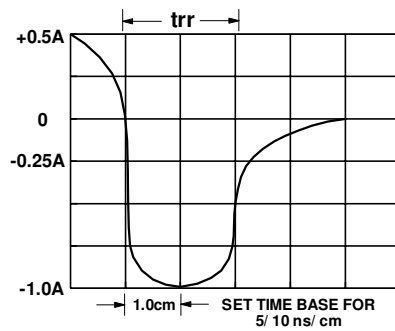
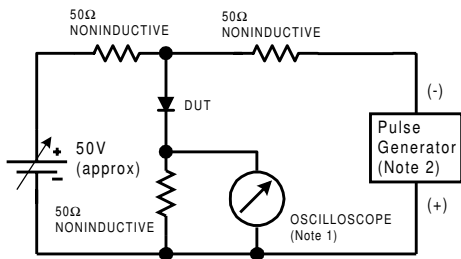
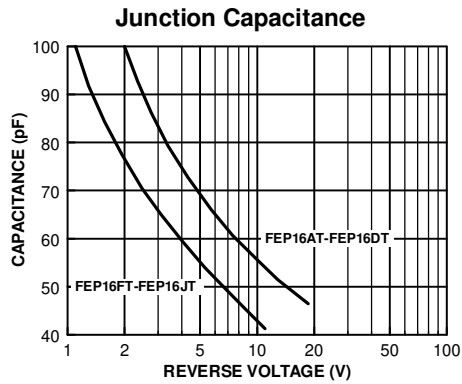
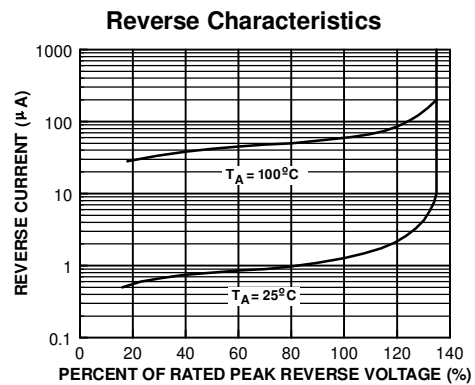
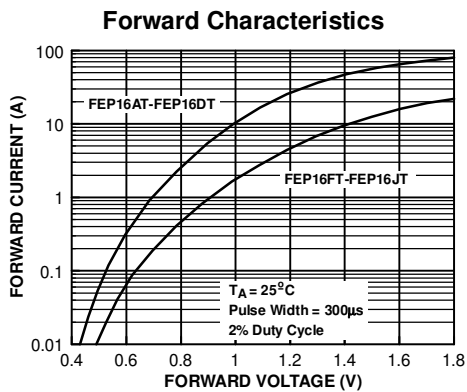
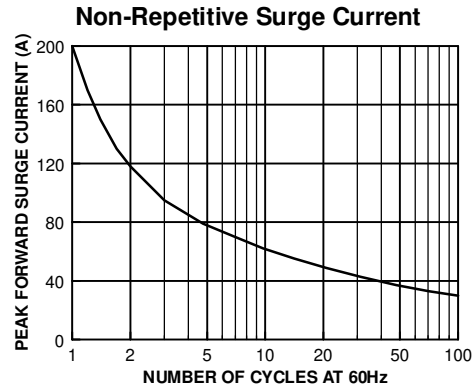
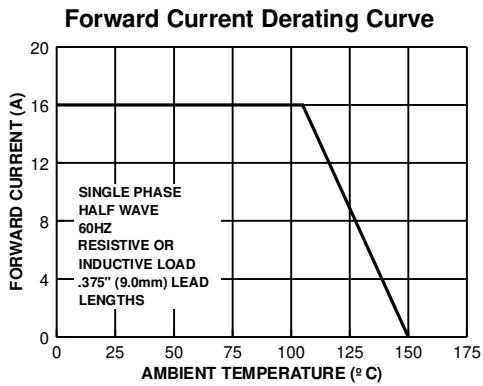
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

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.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.