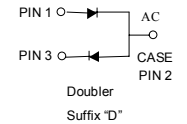
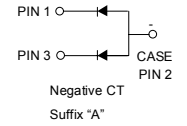
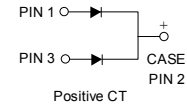
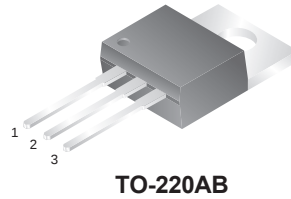


FEP16AT - FEP16JT

Features

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



16 Ampere Glass Passivated Super Fast Rectifiers

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
I _{F(AV)}	Average Rectified Current .375" lead length @ T _A = 100°C	16	A
I _{FSM}	Non-repetitive 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/°C
R _{θJA}	Thermal Resistance, Junction to Ambient	15	°C/W
R _{θJL}	Thermal Resistance, Junction to Lead	2.2	°C/W
T _{stg}	Storage Temperature Range	-65 to +150	°C
T _J	Operating Junction Temperature	-65 to +150	°C

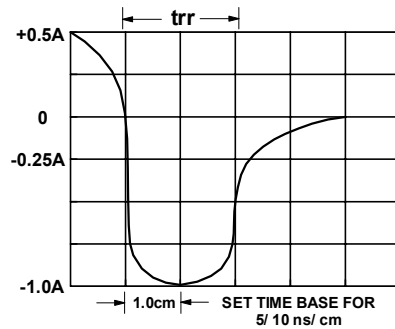
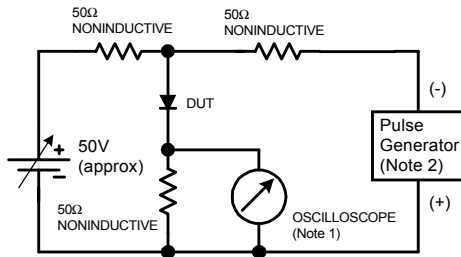
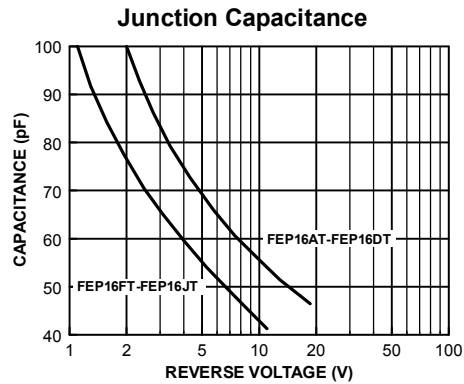
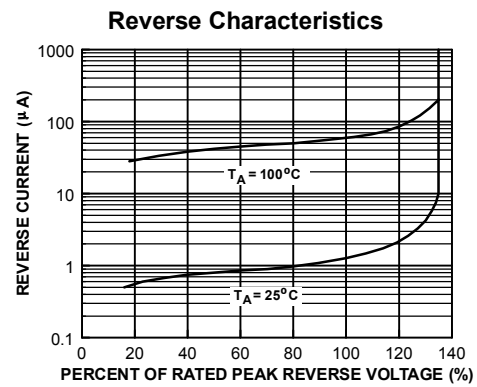
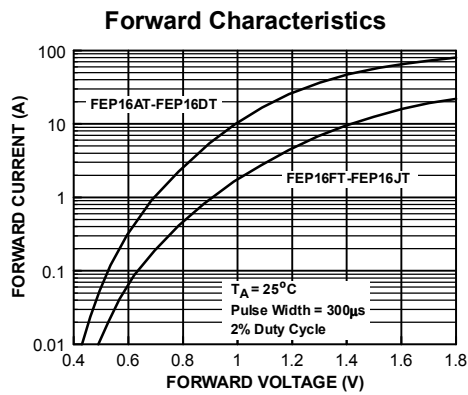
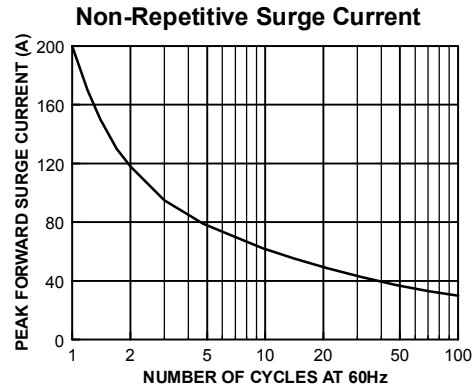
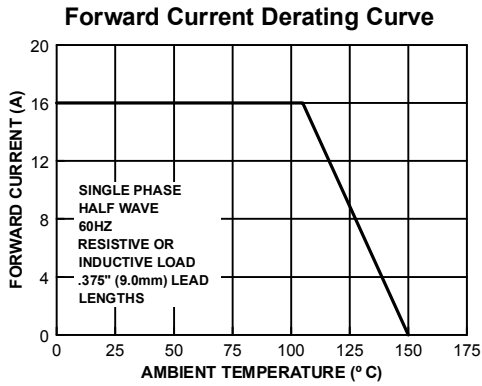
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Electrical Characteristics

T_A = 25°C unless otherwise noted

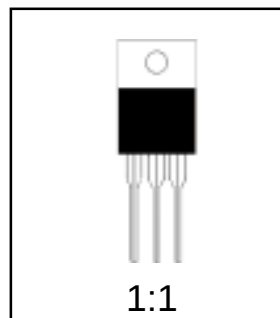
Symbol	Parameter	Device								Units
		16AT	16BT	16CT	16DT	16FT	16GT	16HT	16JT	
V _{RRM}	Maximum Repetitive Reverse Voltage	50	100	150	200	300	400	500	600	V
V _{RMS}	Maximum RMS Voltage	35	70	105	140	210	280	350	420	V
V _R	DC Blocking Voltage (Rated V _R)	50	100	150	200	300	400	500	600	V
I _{RM}	Maximum Instantaneous Reverse Current @ rated V _R T _A = 25°C T _A = 100°C	10 500								μA μA
t _{rr}	Maximum Reverse Recovery Time I _F = 0.5 A, I _R = 1.0 A, I _{RR} = 0.25 A	35				50				ns
V _{FM}	Maximum Instantaneous Forward Voltage @ 8.0A	0.95				1.3		1.5		V
C	Typical Junction Capacitance V _R = 4.0. f = 1.0 MHz	85						60		pF

Typical Characteristics



Reverse Recovery Time Characteristic and Test Circuit Diagram

FAIRCHILD
SEMICONDUCTOR™



Dimensions shown below are in:
inches [millimeters]

Technical drawing showing two views of a mechanical part with dimensions in inches and millimeters.

Top View Dimensions:

- Overall width: 0.6500 [16.51] / 0.5600 [14.22]
- Overall height: 0.4200 [10.67] / 0.3800 [9.65]
- Left circular feature: $\varnothing 0.1610$ [4.09] / $\varnothing 0.1390$ [3.53]
- Right rectangular feature: 0.2500 [6.35] / 0.1430 [3.63] (TYP.)
- Other dimensions: 0.1350 [3.43] / 0.1000 [2.54], 0.0700 [1.78] / 0.0450 [1.14] (TYP.), 0.0400 [1.02] / 0.0150 [0.38] (TYP.), 0.1100 [2.79] / 0.0900 [2.29], 0.2100 [5.33] / 0.1900 [4.83]
- Feature label: PIN#1 ID

Side View Dimensions:

- Overall length: 0.5800 [14.73] / 0.5000 [12.70]
- Overall height: 0.2700 [6.86] / 0.2300 [5.84]
- Right rectangular feature: 0.4200 [10.67] / 0.3800 [9.65]
- Other dimensions: 0.0220 [0.56] / 0.0140 [0.36], 0.1150 [2.92] / 0.0800 [2.03], 0.1900 [4.83] / 0.1400 [3.56], 0.0550 [1.40] / 0.0450 [1.14], 1.1340 [28.80] / 1.1140 [28.30], 5.0°, 7.0°, 5.0°

TO 220 3 LEAD

1. STANDARD LEAD FINISH :
200 MICROINCHES / 5.08 MICRON MINIMUM
LEAD / TIN 15/85 ON OLIN 194 COPPER OR EQUIVALENT

2. DIMENSION BASED ON JEDEC STANDARD TO-220
VARIATION AB, ISSUE J, DATED 3/24/87

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DOVE [™]	ISOPLANAR [™]	Quiet Series [™]	
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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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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.