

Silicon Diode

FEP16BT

Fast Efficient Rectifier

100V / 16A

DATASHEET

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OEM – General Semiconductor

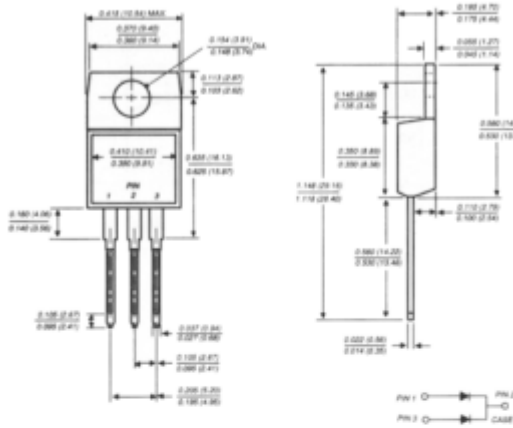
Source: General Semiconductor Databook 1998

FEP16AT THRU FEP16JT

FAST EFFICIENT PLASTIC RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 16.0 Amperes

TO-220AB



Dimensions are in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Dual rectifier construction, positive centertap
- ◆ Glass passivated chip junctions
- ◆ Low power loss
- ◆ Low forward voltage, high current capability
- ◆ High surge current capability
- ◆ Superfast recovery times for high efficiency
- ◆ High temperature soldering guaranteed: 250°C, 0.16" (4.06mm) from case for 10 seconds



MECHANICAL DATA

Case: JEDEC TO-220AB molded plastic body over passivated chips

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: As marked

Mounting Position: Any

Mounting Torque: 5 in. - lbs. max.

Weight: 0.08 ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	FEP 16AT	FEP 16BT	FEP 16CT	FEP 16DT	FEP 16FT	FEP 16GT	FEP 16HT	FEP 16JT	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	150	200	300	400	500	600	Volts
Maximum RMS voltage	VRMS	35	70	105	140	210	280	350	420	Volts
Maximum DC blocking voltage	VDC	50	100	150	200	300	400	500	600	Volts
Maximum average forward rectified current at T _C =100°C	I _(AV)	16.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	200.0								Amps
Maximum instantaneous forward voltage per leg at 8.0A	V _F	0.95		1.3			1.5			Volts
Maximum DC reverse current at rated DC blocking voltage per leg	I _R	10.0		500.0						µA
Maximum reverse recovery time (NOTE 1) per leg	t _{rr}	35.0			50.0				ns	
Typical junction capacitance per leg (NOTE 2)	C _J	85.0						60.0		pF
Typical thermal resistance (NOTE 3)	R _{θJA} R _{θJC}	15.0						2.2		°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150								°C

NOTES:

- (1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_V=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient and from junction to case per leg mounted on heatsink

RATINGS AND CHARACTERISTICS CURVES FEP16AT THRU FEP16JT

