

Silicon Diode

FEP16AT

Fast Efficient Rectifier

50V / 16A

DATASHEET

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OEM – General Semiconductor

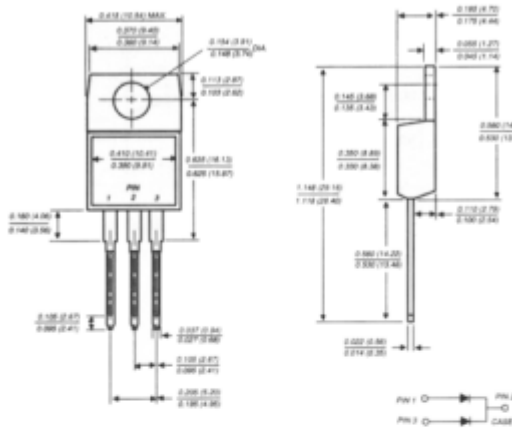
Source: General Semiconductor Databook 1998

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	V _{RRM}	50	100	150	200	300	400	500	600	Volts
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	350	420	Volts
Maximum DC blocking voltage	V _{DC}	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

