

Silicon Diode

FEP6CT

Fast Efficient Rectifier

150V / 6A

DATASHEET

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OEM – General Semiconductor

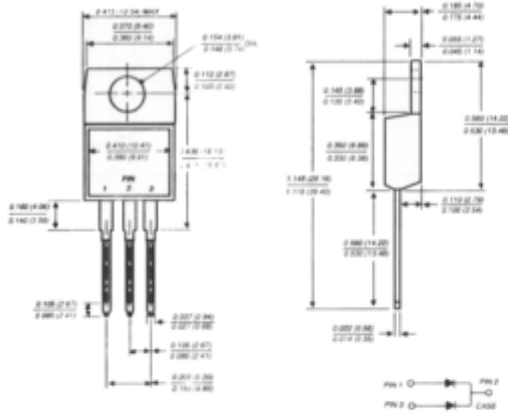
Source: General Semiconductor Databook 1998

FEP6AT THRU FEP6DT

FAST EFFICIENT PLASTIC RECTIFIER

Reverse Voltage - 50 to 200 Volts Forward Current - 6.0 Amperes

TO-220AB



Dimensions are in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Dual rectifier construction, positive center-tap
- ◆ Glass passivated chip junctions
- ◆ Superfast recovery times for high efficiency
- ◆ Low power loss
- ◆ Low forward voltage, high current capability
- ◆ For use in low voltage, high frequency inverters, free wheeling and polarity protection applications
- ◆ 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 lead solderable per MIL-STD-750, Method 2026

Polarity: As marked

Mounting Position: Any

Mounting Torque: 5 in. - lb. max.

Weight: 0.08 ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	FEP6AT	FEP6BT	FEP6CT	FEP6DT	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	150	200	Volts
Maximum RMS voltage	VRMS	35	70	105	140	Volts
Maximum DC blocking voltage	VDC	50	100	150	200	Volts
Maximum average forward rectified current at TC=100°	IAV	6.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100.0				Amps
Maximum instantaneous forward voltage per leg at 3.0A	VF	0.975				Volts
Maximum DC reverse current at rated DC blocking voltage	IR	5.0 50.0				µA
Maximum reverse recovery time per leg (NOTE 1)	trr	35.0				ns
Typical thermal resistance (NOTE 2)	REJA	20.0				°C/W
(NOTE 3)	REJC	3.6				
Typical junction capacitance per leg (NOTE 4)	CJ	28.0				pF
Operating junction and storage temperature range	TJ, TSTG	-55 to +150				°C

NOTES:

- (1) Reverse recovery test conditions: Ir=0.5A, If=1.0A, Ie=0.25A
- (2) Thermal resistance from junction to ambient in free air, no heatsink
- (3) Thermal resistance from junction to case per leg mounted on heatsink
- (4) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTIC CURVES FEP6AT THRU FEP6DT

