

# FEP16AT THRU FEP16JT

## FAST EFFICIENT PLASTIC RECTIFIER

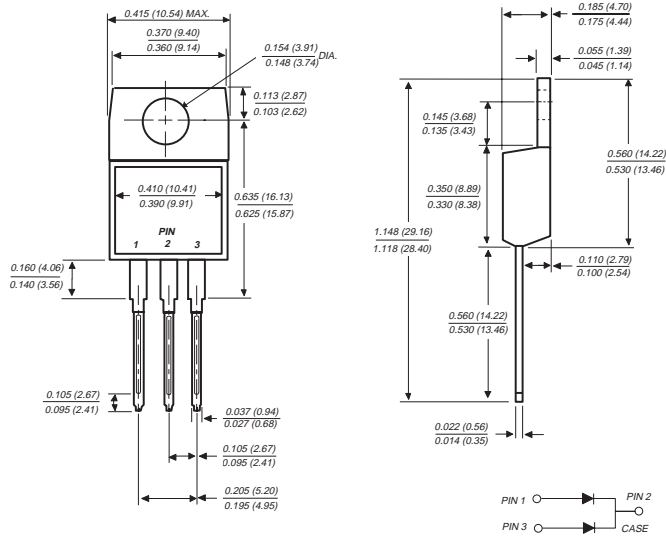
Reverse Voltage - 50 to 600 Volts

Forward Current - 16.0 Amperes

### TO-220AB

### 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



Dimensions are in inches and (millimeters)

### 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 <sub>RRM</sub>	50	100	150	200	300	400	500	600	Volts	
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	350	420	Volts	
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	500	600	Volts	
Maximum average forward rectified current at T <sub>C</sub> =100°C	I <sub>(AV)</sub>	16.0								Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200.0								Amps	
Maximum instantaneous forward voltage per leg at 8.0A	V <sub>F</sub>	0.95			1.3		1.5			Volts	
Maximum DC reverse current at rated DC blocking voltage per leg	I <sub>R</sub>	10.0 500.0								μA	
Maximum reverse recovery time (NOTE 1) per leg	t <sub>rr</sub>	35.0				50.0				ns	
Typical junction capacitance per leg (NOTE 2)	C <sub>J</sub>	85.0						60.0			pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub> R <sub>θJC</sub>	15.0 2.2								°C/W	
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150								°C	

#### NOTES:

(1) Reverse recovery test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=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

FIG. 1 - FORWARD CURRENT DERATING CURVE

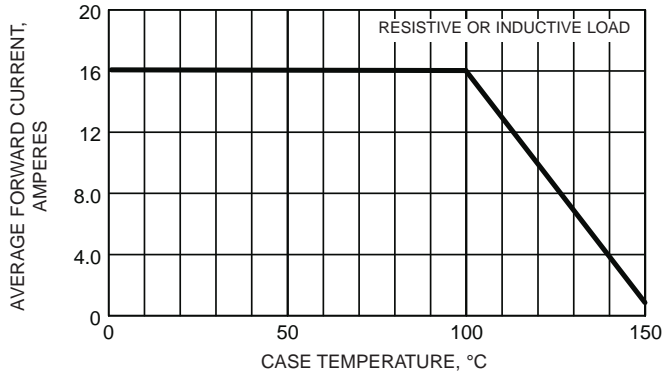


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

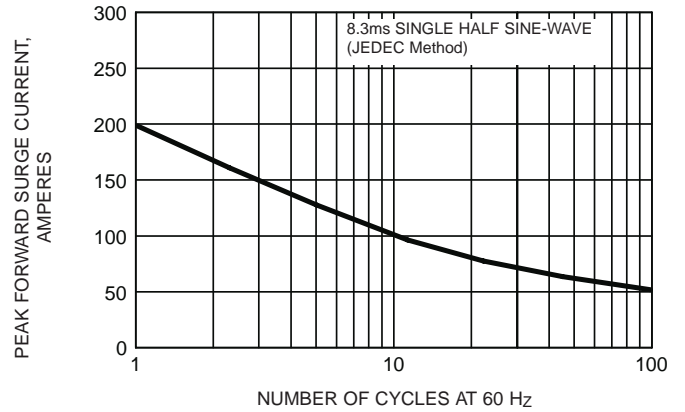


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

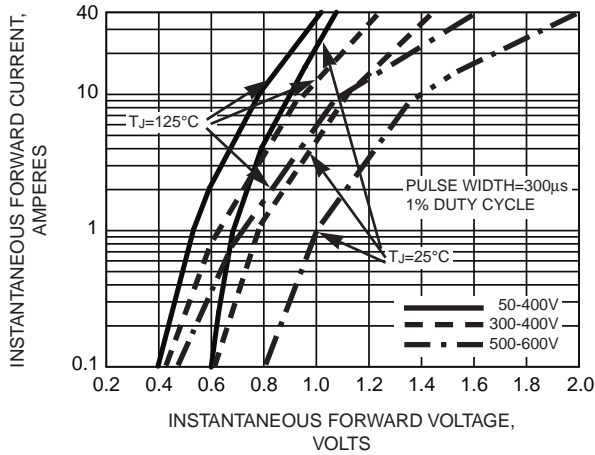


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

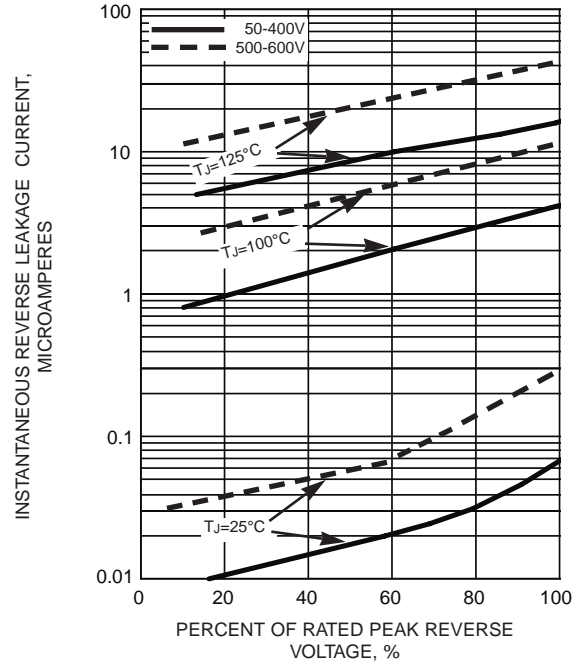
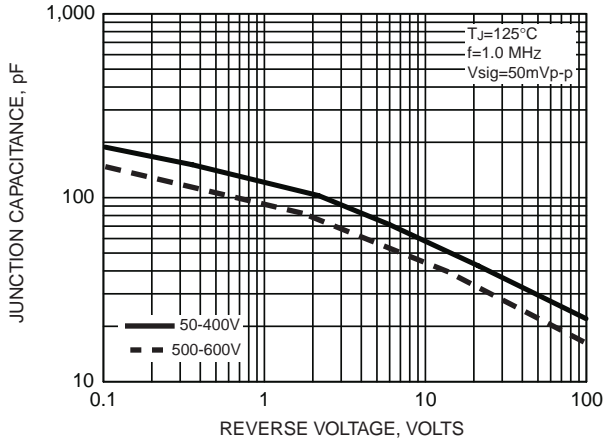


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG



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