

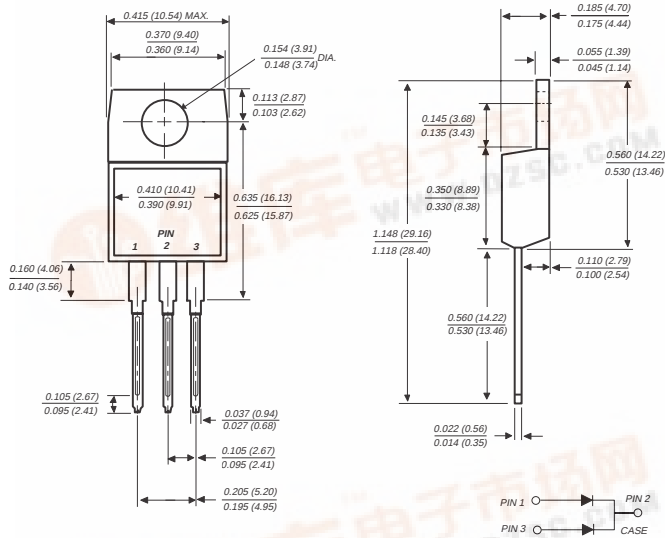
FEP16AT THRU FEP16JT

FAST EFFICIENT PLASTIC RECTIFIER

Reverse Voltage - 50 to 600 Volts

Forward Current - 16.0 Amperes

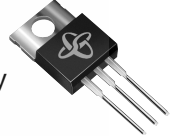
TO-220AB



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

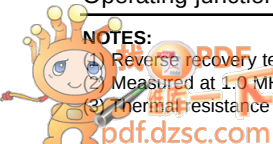
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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 T _C =25°C T _C =100°C	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: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
- (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

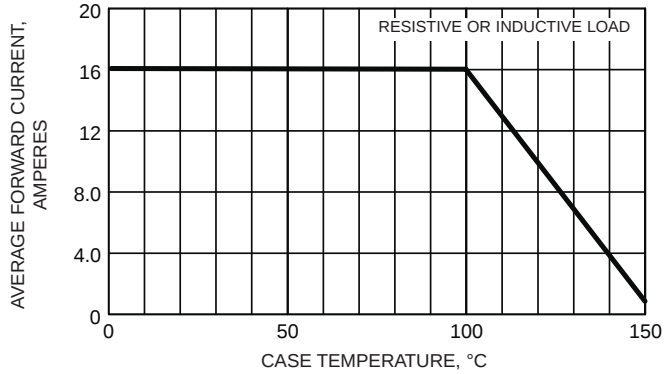


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

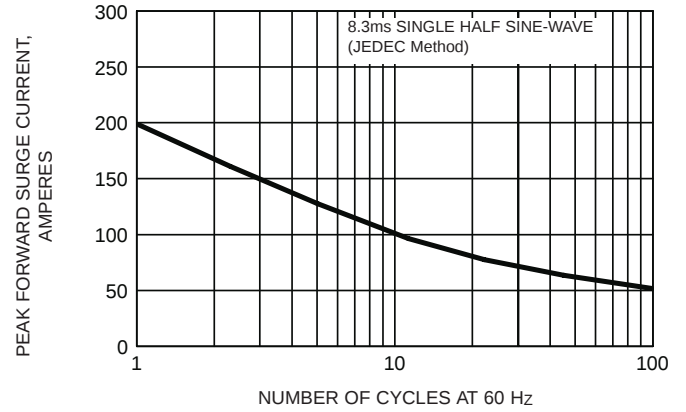


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

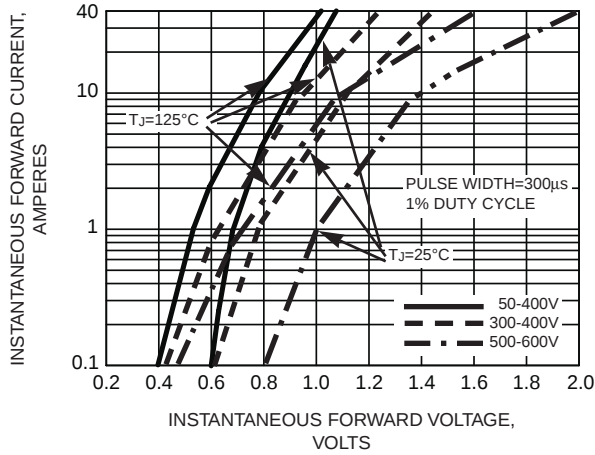


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

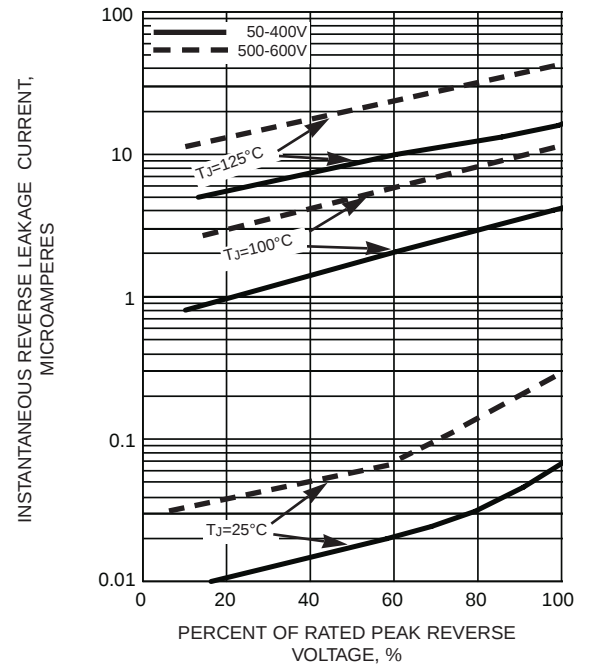


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

