

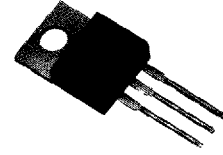
T-03-17

# FEP16AT THRU FEP16JT

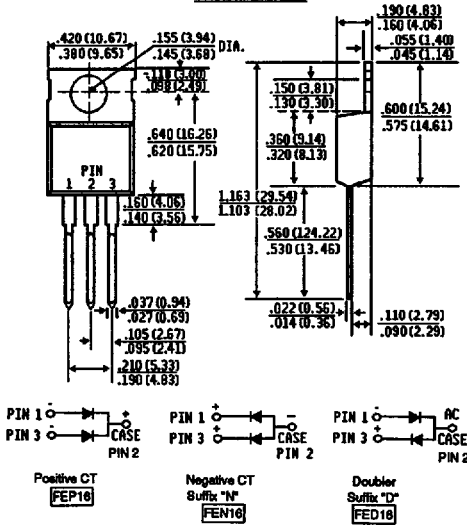
**FAST EFFICIENT GLASS PASSIVATED RECTIFIER**  
**Voltage - 50 to 600 Volts Current - 16.0 Amperes**

## FEATURES

- ◆ Dual rectifier construction, positive centertap
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junctions
- ◆ Low power loss
- ◆ Low forward voltage, high current capability
- ◆ High surge capability
- ◆ Superfast recovery times for high efficiency
- ◆ High temperature soldering guaranteed: 250°C, .25", (6.35mm) from case for 10 seconds



### TO-220 CT



## MECHANICAL DATA

**Case:** JEDEC TO-220 molded plastic

**Terminals:** Plated Leads solderable per MIL-STD-202, Method 208

**Polarity:** As marked

**Mounting Position:** Any

**Weight:** 0.08 ounce, 2.24 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Resistive or inductive load.  
 For capacitive load, derate current by 20%.

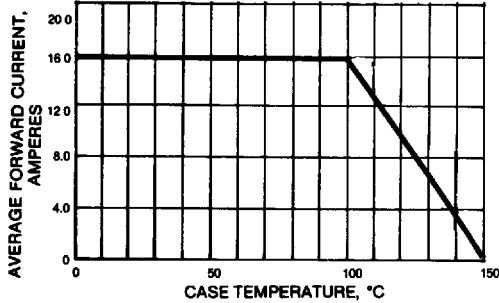
		FEP 16AT	FEP 16BT	FEP 16CT	FEP 16DT	FEP 16FT	FEP 16GT	FEP 16HT	FEP 16JT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	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 T <sub>C</sub> =25°C T <sub>C</sub> =100°C	I <sub>R</sub>	10.0 500.0								μA
Maximum Reverse Recovery Time (NOTE 2) per leg T <sub>J</sub> = 25°C	T <sub>RR</sub>	35.0			50.0					nS
Typical Junction Capacitance per leg (NOTE 1)	C <sub>J</sub>	85.0						60.0		pf
Maximum Thermal Resistance (NOTE 3)	RθJC	3.0								°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150								°C

- NOTES:**
- Measured at 1 MHz and applied reverse voltage of 4.0 volts.
  - Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, recover to 0.25A.
  - Thermal Resistance from Junction to Case per leg.

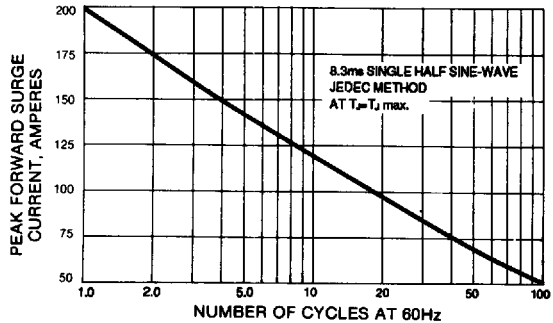
T-03-17

**RATINGS AND CHARACTERISTIC CURVES FEP16AT THRU FEP16JT**

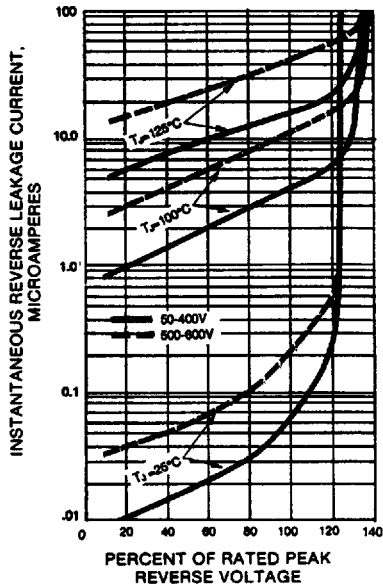
**FIG. 1 — FORWARD CURRENT DERATING CURVE**



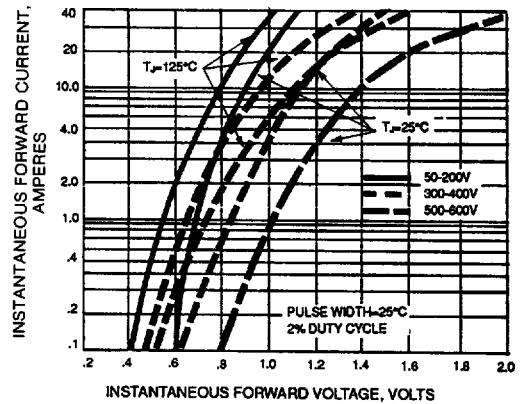
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



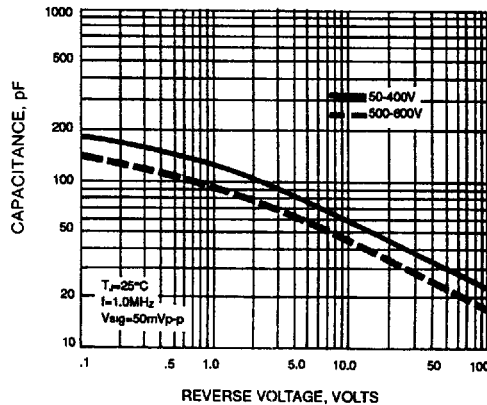
**FIG. 3 — TYPICAL REVERSE CHARACTERISTICS PER LEG**



**FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG**



**GENERAL INSTRUMENT**