

# FEP16AT - FEP16JT

## Ultrafast Plastic Rectifiers

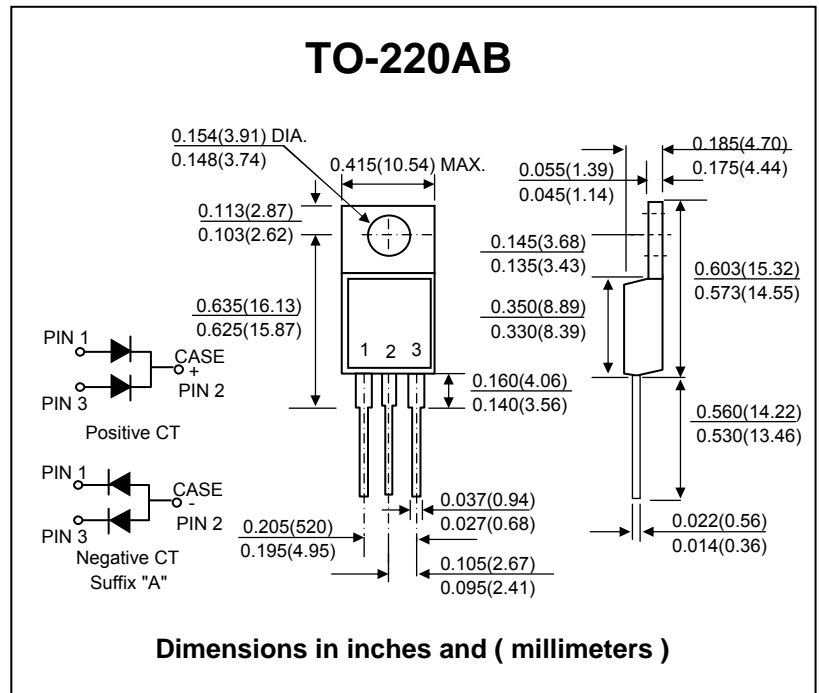
**PRV : 50 - 600 Volts**  
**Io : 16 Ampere**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* Low leakage, high voltage
- \* Glass passivated chip junction
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : Epoxy, Molded
- \* Lead Temperature for Soldering Purposes: 260 °C Max. for 10 Seconds
- \* Polarity: As marked
- \* Mounting Position: Any
- \* Weight : 2.24 grams (Approximately)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

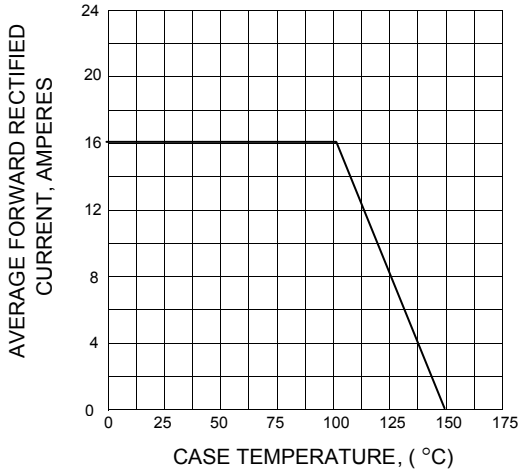
RATING	SYMBOL	FEP 16AT	FEP 16BT	FEP 16CT	FEP 16DT	FEP 16FT	FEP 16GT	FEP 16HT	FEP 16JT	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	500	600	V
Maximum Average Forward Current, $T_C = 100^\circ\text{C}$	$I_{F(AV)}$	16								A
Maximum Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_c = 100^\circ\text{C}$	$I_{FSM}$	200				125				A
Maximum Instantaneous Forward Voltage at $I_F = 8\text{ A}$	$V_F$	0.95			1.3		1.5		V	
Maximum Reverse Current at $T_C = 25^\circ\text{C}$	$I_R$	10								$\mu\text{A}$
Rated DC Blocking Voltage $T_C = 100^\circ\text{C}$	$I_{R(H)}$	500								$\mu\text{A}$
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	35				50				ns
Typical junction capacitance at $V_R = 4\text{V}$ , $f = 1\text{MHz}$	$C_j$	85						60		pF
Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.2								$^\circ\text{C/W}$
Operating storage and temperature range	$T_J, T_{STG}$	- 65 to + 150								$^\circ\text{C}$

#### Notes :

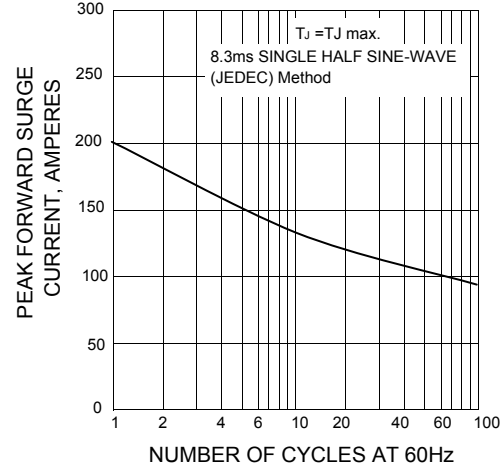
- (1) Reverse Recovery Test Conditions :  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$  ;  $I_{rr} = 0.25\text{ A}$
- (2) For Negative CT add suffix "A" e.g. FEP16ATA, FEP16BTA ... FEP16JTA

**RATING AND CHARACTERISTIC CURVES ( FEP16AT ~ FEP16JT )**

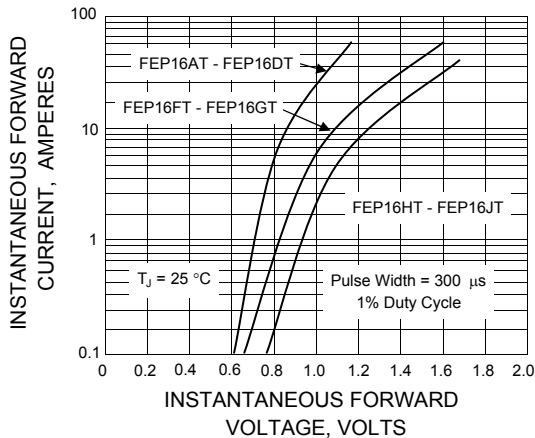
**FIG.1 - FORWARD CURRENT DERATING CURRENT**



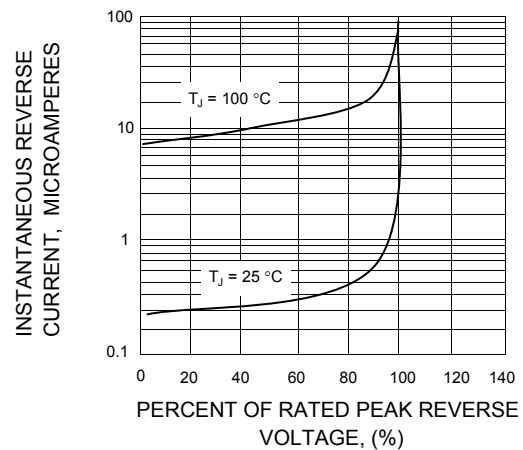
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

