

FEP16AT - FEP16JT

Ultrafast Plastic Rectifiers

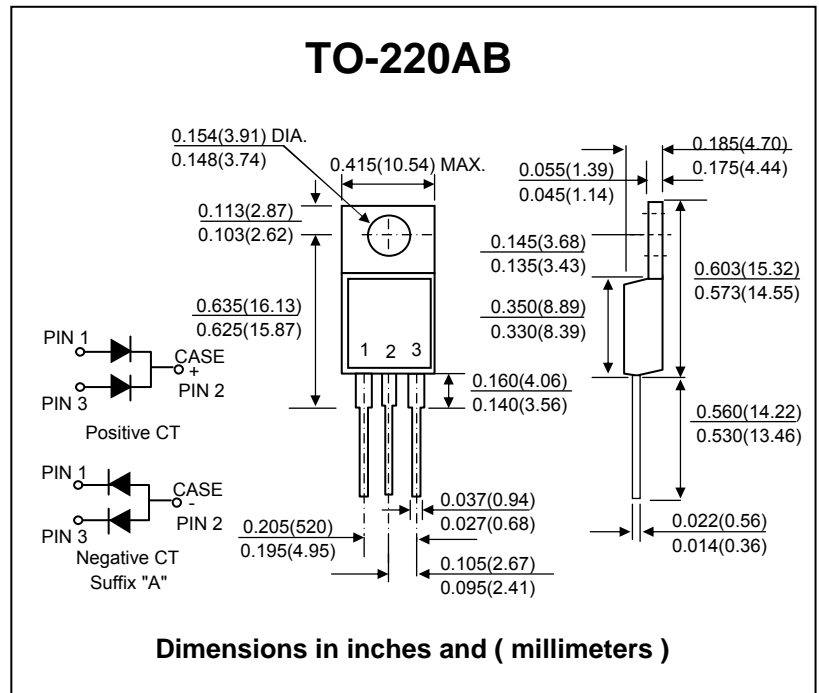
PRV : 50 - 600 Volts
Io : 16 Ampere

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								μA
Rated DC Blocking Voltage $T_C = 100^\circ\text{C}$	$I_{R(H)}$	500								μA
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

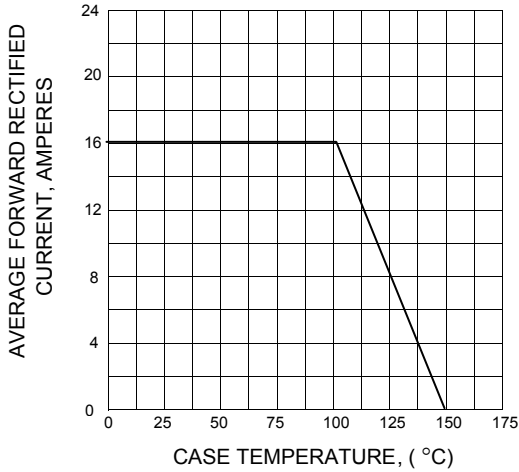


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

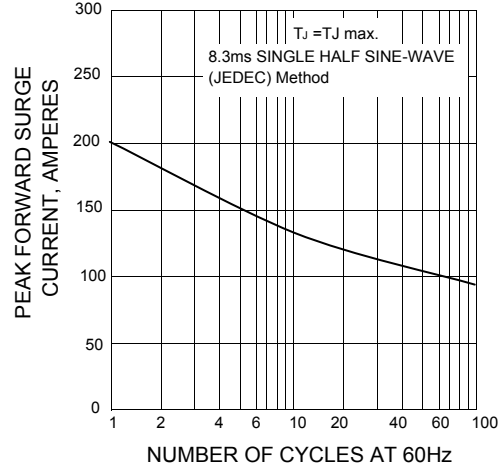


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

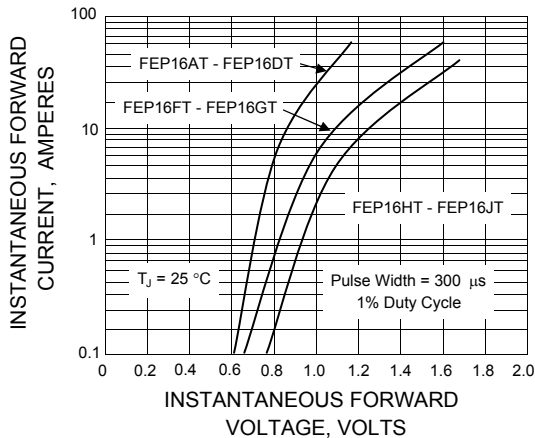


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

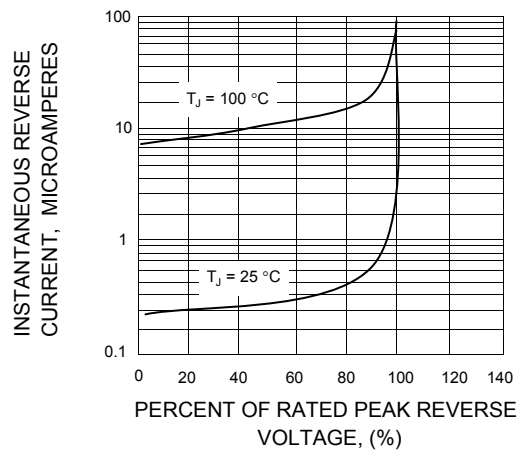


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

