

FEP16AT - FEP16JT

Ultrafast Plastic Rectifiers

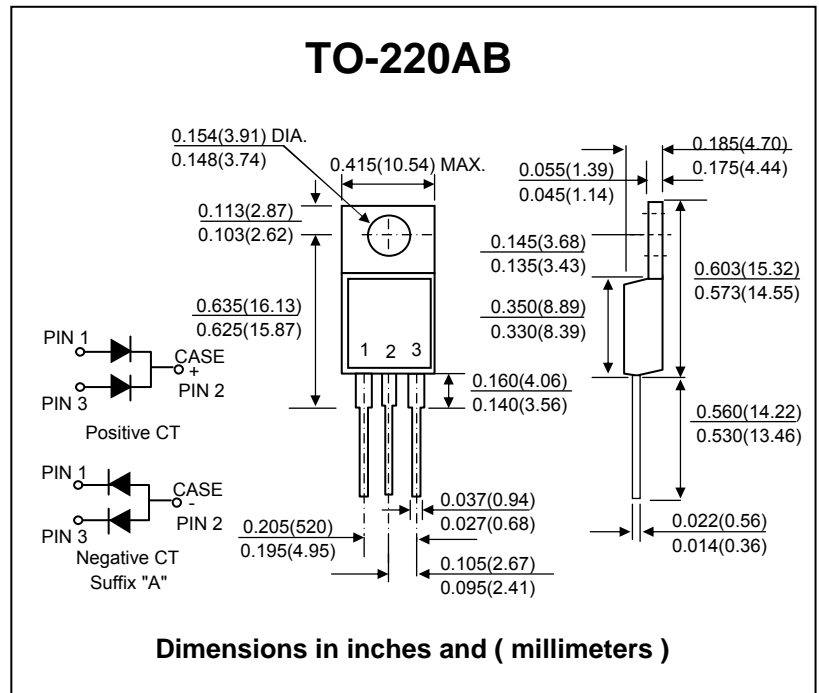
PRV : 50 - 600 Volts
Io : 16 Ampere

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

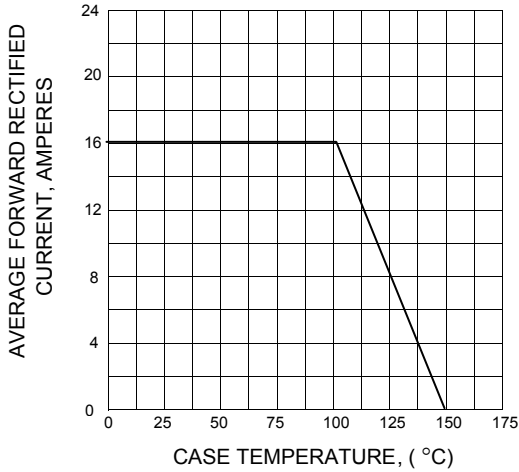


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

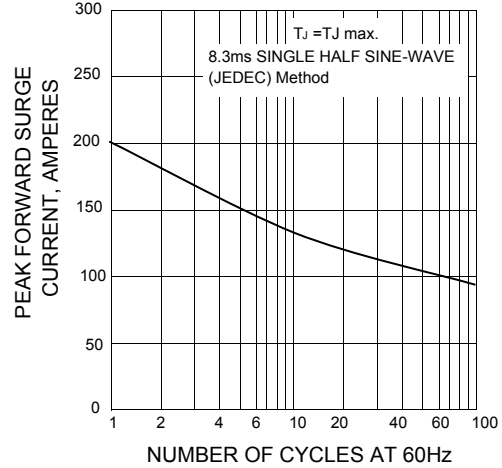


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

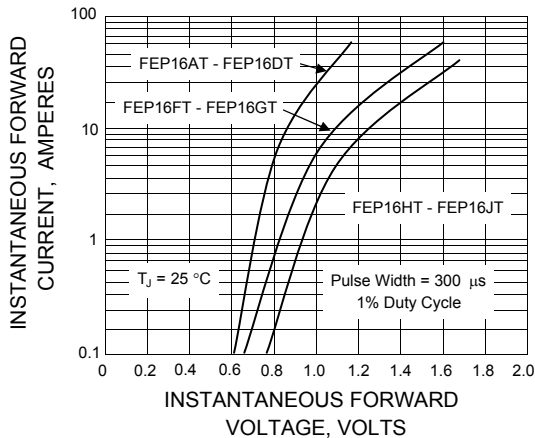


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

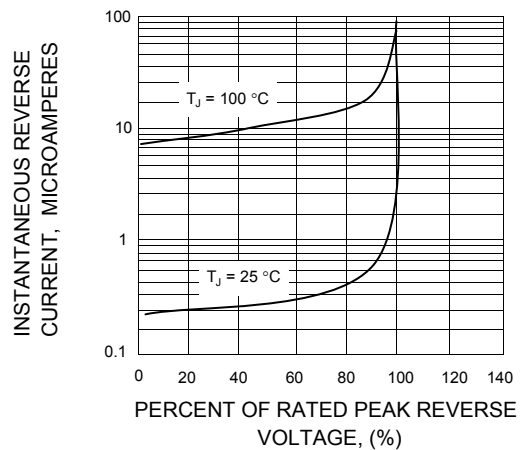


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

