

FES16AT - FES16JT

PRV : 50 - 600 Volts

Io : 16 Ampere

FEATURES :

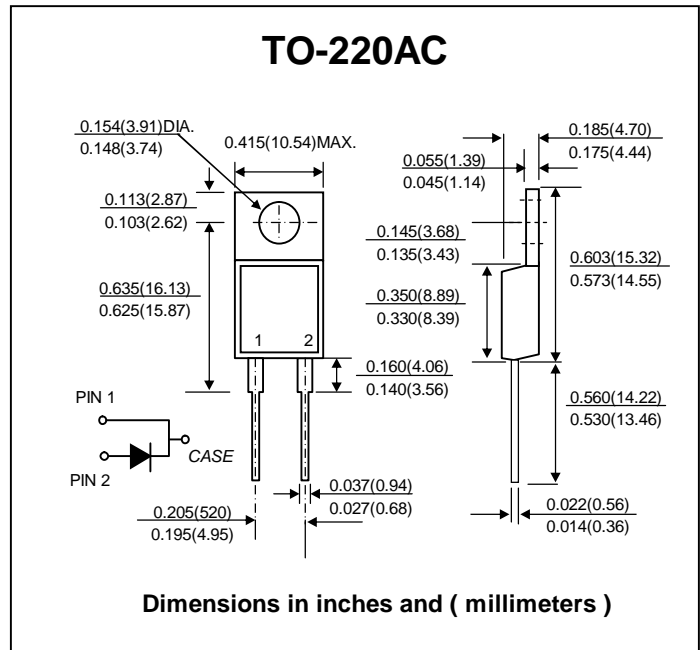
- * High current capability
- * High surge current capability
- * Low leakage, high voltage
- * Glass passivated chip junction
- * Pb / RoHS Free

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)

Ultrafast Plastic Rectifiers

TO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

| RATING | SYMBOL | FES 16AT | FES 16BT | FES 16CT | FES 16DT | FES 16FT | FES 16GT | FES 16HT | FES 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°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°C | I _{FSM} | 250 | | | | | | | | A |
| Maximum Instantaneous Forward Voltage at I _F = 16 A | V _F | 0.975 | | | 1.3 | | 1.5 | | | V |
| Maximum Reverse Current at T _c = 25 °C | I _R | 10 | | | | | | | | μA |
| Rated DC Blocking Voltage T _c = 100 °C | I _{R(H)} | 500 | | | | | | | | μA |
| Maximum Reverse Recovery Time (Note 1) | T _{rr} | 35 | | | 50 | | | | | ns |
| Typical junction capacitance at 4V, 1MHz | C _j | 175 | | | | | | 145 | | pF |
| Maximum Thermal Resistance, Junction to Case | R _{θJC} | 1.2 | | | | | | | | °C/W |
| Operating storage and temperature range | T _J , T _{STG} | - 65 to + 150 | | | | | | | | °C |

Note :

(1) Reverse Recovery Test Conditions : I_F = 0.5A, I_R = 1A ; I_{rr} = 0.25 A

RATING AND CHARACTERISTIC CURVES (FES16AT ~ FES16JT)

FIG.1 - FORWARD CURRENT DERATING CURRENT

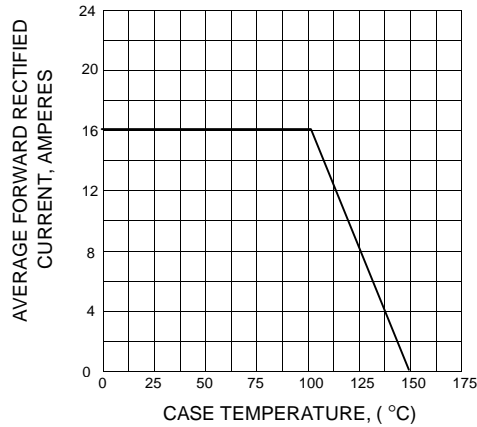


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

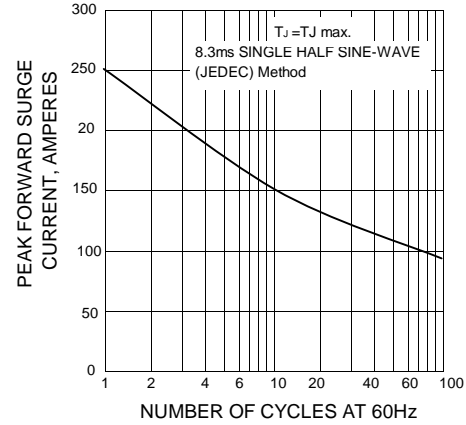


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

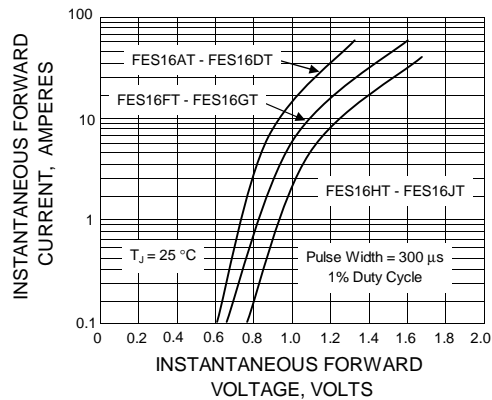


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

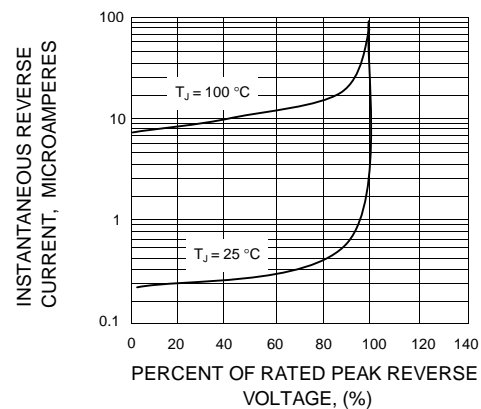


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

