

# FES16AT - FES16JT

**PRV : 50 - 600 Volts**

**Io : 16 Ampere**

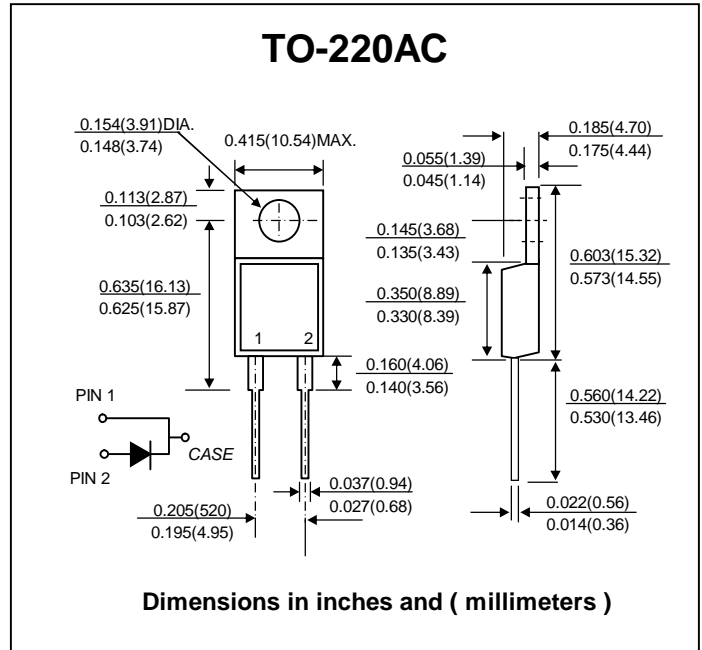
**FEATURES :**

- \* 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



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

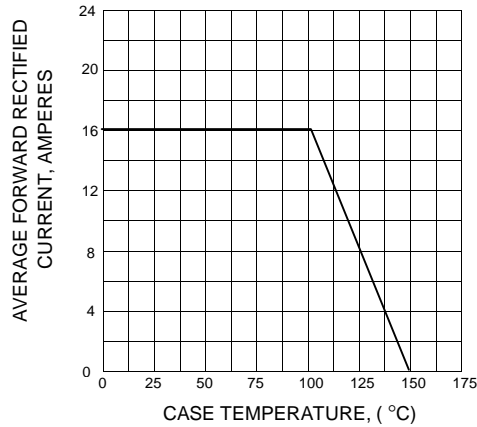
RATING	SYMBOL	FES 16AT	FES 16BT	FES 16CT	FES 16DT	FES 16FT	FES 16GT	FES 16HT	FES 16JT	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	500	600	V
Maximum Average Forward Current, T <sub>c</sub> = 100°C	I <sub>F(AV)</sub>	16								A
Maximum Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T <sub>c</sub> = 100°C	I <sub>FSM</sub>	250								A
Maximum Instantaneous Forward Voltage at I <sub>F</sub> = 16 A	V <sub>F</sub>	0.975			1.3		1.5			V
Maximum Reverse Current at T <sub>c</sub> = 25 °C	I <sub>R</sub>	10								µA
Rated DC Blocking Voltage T <sub>c</sub> = 100 °C	I <sub>R(H)</sub>	500								µA
Maximum Reverse Recovery Time ( Note 1 )	T <sub>rr</sub>	35			50					ns
Typical junction capacitance at 4V, 1MHz	C <sub>j</sub>	175						145		pF
Maximum Thermal Resistance, Junction to Case	R <sub>θJC</sub>	1.2								°C/W
Operating storage and temperature range	T <sub>J</sub> , T <sub>STG</sub>	- 65 to + 150								°C

**Note :**

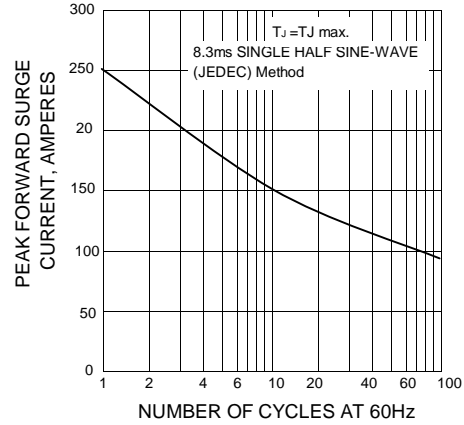
(1) Reverse Recovery Test Conditions : I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1A ; I<sub>rr</sub> = 0.25 A

## RATING AND CHARACTERISTIC CURVES ( FES16AT ~ FES16JT )

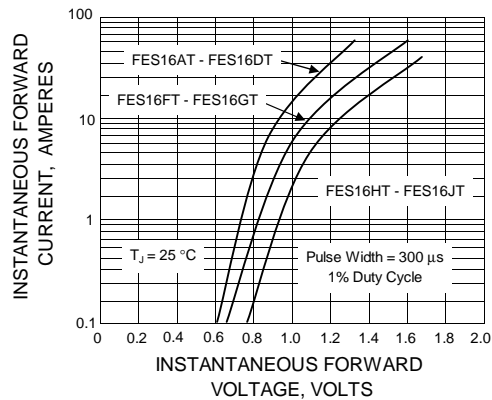
**FIG.1 - FORWARD CURRENT DERATING CURRENT**



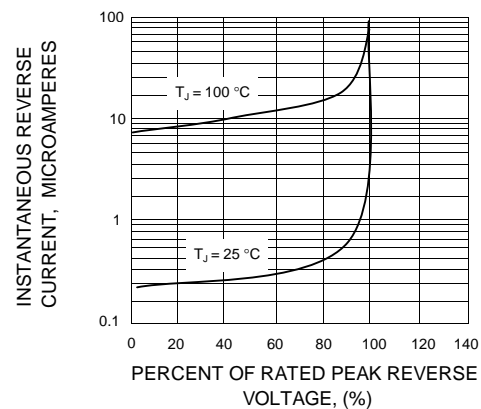
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



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



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

