

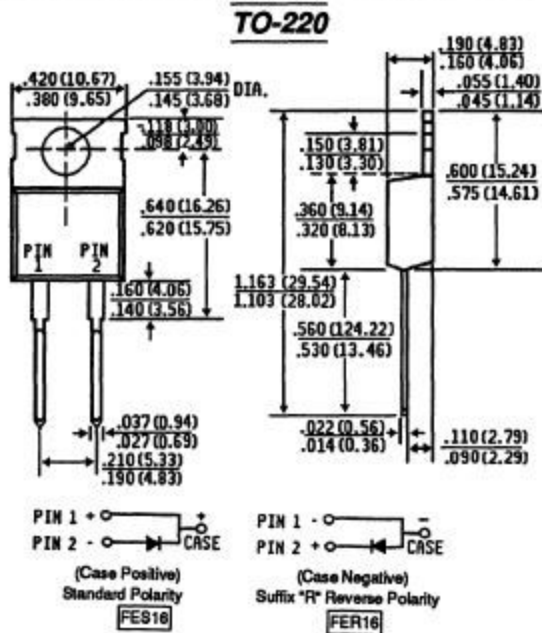
# FES16AT THRU FES16JT

## FAST EFFICIENT GLASS PASSIVATED RECTIFIER

**Voltage - 50 to 600 Volts    Current - 16.0 Amperes**

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junctions
- ◆ Low power loss
- ◆ Low forward voltage, high current capability
- ◆ High surge capability
- ◆ Superfast recovery times, for high efficiency
- ◆ High temperature soldering guaranteed: 250°C, .25", (6.35mm) from case for 10 seconds



Dimensions in inches and (millimeters)

### MECHANICAL DATA

**Case:** JEDEC TO-220 molded plastic

**Terminals:** Plated Lead solderable per MIL-STD-202, Method 208

**Polarity:** As marked

**Mounting Position:** Any

**Weight:** 0.08 ounce, 2.24 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

For capacitive load, derate current by 20%.

		FES	FES	FES	FES	FES	FES	FES	FES		
	SYMBOLS	16AT	16BT	16CT	16DT	16FT	16GT	16HT	16JT	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	500	600	Volts	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	350	420	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	500	600	Volts	
Maximum Average Forward Rectified Current at T <sub>C</sub> =100°C	I <sub>(AV)</sub>	16.0								Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	250.0								Amps	
Maximum Instantaneous Forward Voltage at 16A	V <sub>F</sub>	0.95			1.3			1.5		Volts	
Maximum DC Reverse Current T <sub>C</sub> =25°C at Rated DC Blocking Voltage T <sub>C</sub> =100°C	I <sub>R</sub>	10.0			500.0					µA	
Maximum Reverse Recovery Time (NOTE 2) T <sub>J</sub> =25°C	T <sub>RR</sub>	35.0			50.0					nS	
Typical Junction Capacitance (NOTE 1)	C <sub>J</sub>	175.0					145.0				pf
Typical Thermal Resistance (NOTE 3)	R <sub>θJC</sub>	1.5									°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150									°C

#### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
2. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, recover to 0.25A.
3. Thermal Resistance from Junction to Case.