

Silicon Diode

FES16AT

Fast Efficient Rectifier

50V / 16A

DATASHEET

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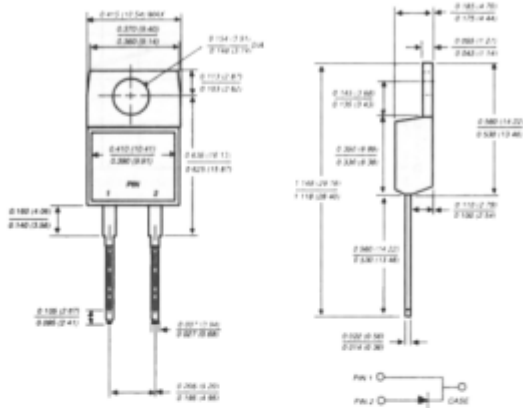
Source: General Semiconductor Databook 1998

FES16AT THRU FES16JT

FAST EFFICIENT PLASTIC RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 16.0 Amperes

TO-220AC



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junction
- ◆ Low power loss
- ◆ Low forward voltage, high current capability
- ◆ High surge current capability
- ◆ Superfast recovery time, for high efficiency
- ◆ High temperature soldering guaranteed: 250°C, 0.16" (4.06mm) from case for 10 seconds



MECHANICAL DATA

Case: JEDEC TO-220AC molded plastic body over passivated chips
Terminals: Plated lead solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Weight: 0.064 ounce, 1.81 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	FES 16AT	FES 16BT	FES 16CT	FES 16DT	FES 16FT	FES 16GT	FES 16HT	FES 16JT	UNITS	
Maximum repetitive peak reverse voltage	VRRM	50	100	150	200	300	400	500	600	Volts	
Maximum RMS voltage	VRMS	35	70	105	140	210	280	350	420	Volts	
Maximum DC blocking voltage	VDC	50	100	150	200	300	400	500	600	Volts	
Maximum average forward rectified current at TC=100°C	IF(AV)	16.0								Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at TC=100°C	IFSM	250.0								Amps	
Maximum instantaneous forward voltage at 16A	VF	0.975			1.3		1.5			Volts	
Maximum DC reverse current at rated DC blocking voltage	IR	TC=25°C			10.0			TC=100°C			µA
Maximum reverse recovery time (NOTE 1)	trr	35.0			50.0						ns
Typical junction capacitance (NOTE 2)	CJ				175.0			145.0			pF
Typical thermal resistance (NOTE 3)	REJA REJC				16.0						°C/W
Operating and storage temperature range	TJ, TSTG				-65 to +150						°C

NOTES:

- (1) Reverse recovery test conditions: IF=0.5A, IR=1.0A, IR=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to case and ambient mounted on heatsink

RATINGS AND CHARACTERISTICS CURVES FES16AT THRU FES16JT

