



ELECTRICAL CHARACTERISTICS (T <sub>C</sub> = 25 °C unless otherwise noted)											
PARAMETER	TEST CONDITIONS	SYMBOL	FES 16AT	FES 16BT	FES 16CT	FES 16DT	FES 16FT	FES 16GT	FES 16HT	FES 16JT	UNIT
Maximum instantaneous forward voltage	16 A	V <sub>F</sub> <sup>(1)</sup>	0.975				1.30		1.50		V
Maximum DC reverse current at rated DC blocking voltage	T <sub>C</sub> = 25 °C	I <sub>R</sub>	10								μA
	T <sub>C</sub> = 100 °C		500								
Maximum reverse recovery time	I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>rr</sub> = 0.25 A	t <sub>rr</sub>	35				50				ns
Typical junction capacitance	4.0 V, 1 MHz	C <sub>J</sub>	175						145		pF

**Note**

<sup>(1)</sup> Pulse test: 300 μs pulse width, 1 % duty cycle

THERMAL CHARACTERISTICS (T <sub>C</sub> = 25 °C unless otherwise noted)					
PARAMETER	SYMBOL	FES	FESF	FESB	UNIT
Typical thermal resistance, junction to case	R <sub>θJC</sub>	1.2	1.7	1.2	°C/W

ORDERING INFORMATION (Example)					
PACKAGE	PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
TO-220AC	FES16JT-E3/45	1.78	45	50/tube	Tube
ITO-220AC	FESF16JT-E3/45	1.80	45	50/tube	Tube
TO-263AB	FESB16JT-E3/45	1.33	45	50/tube	Tube
TO-263AB	FESB16JT-E3/81	1.33	81	800/reel	Tape and reel
ITO-220AC	FESF16JT <sub>HE3</sub> _A/P <sup>(1)</sup>	1.80	P	50/tube	Tube
TO-263AB	FESB16JT <sub>HE3</sub> _A/P <sup>(1)</sup>	1.33	P	50/tube	Tube
TO-263AB	FESB16JT <sub>HE3</sub> _A/I <sup>(1)</sup>	1.33	I	800/reel	Tape and reel

**Note**

<sup>(1)</sup> AEC-Q101 qualified, available in ITO-220AC and TO-263AB package



## RATINGS AND CHARACTERISTICS CURVES ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

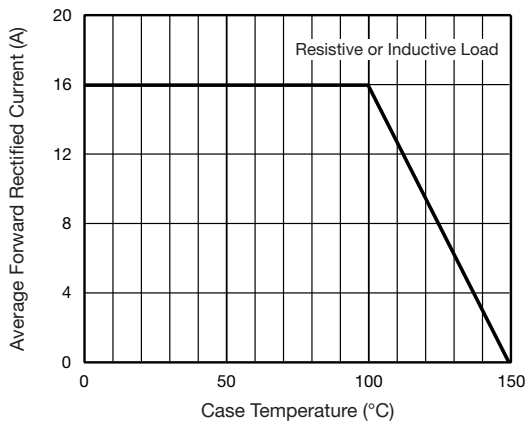


Fig. 1 - Maximum Forward Current Derating Curve

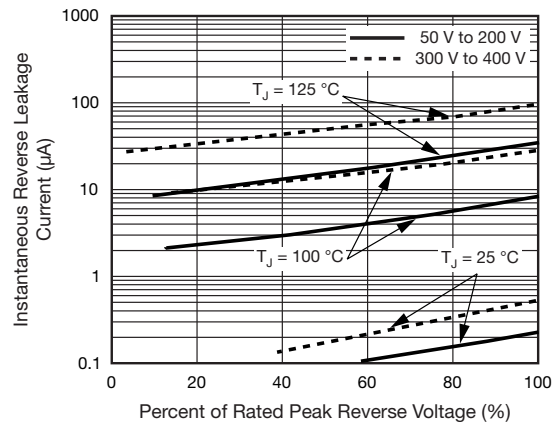


Fig. 4 - Typical Reverse Leakage Characteristics

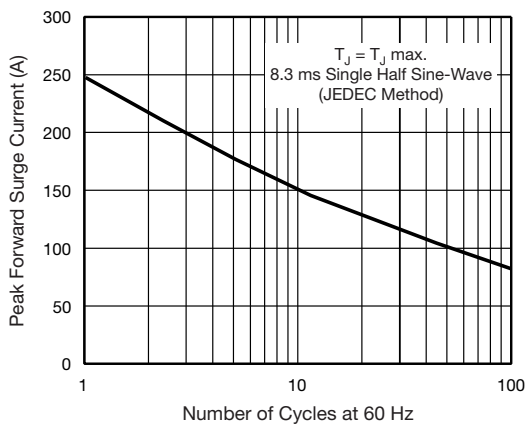


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

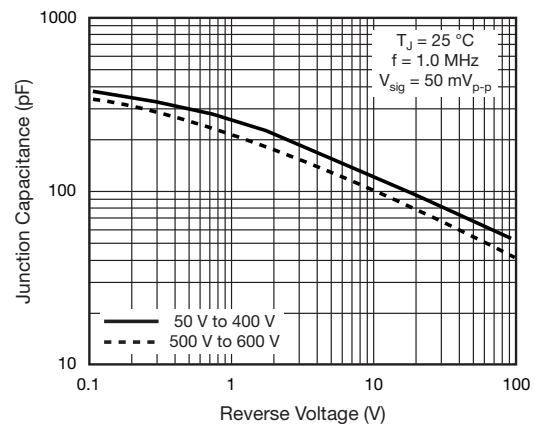


Fig. 5 - Typical Junction Capacitance

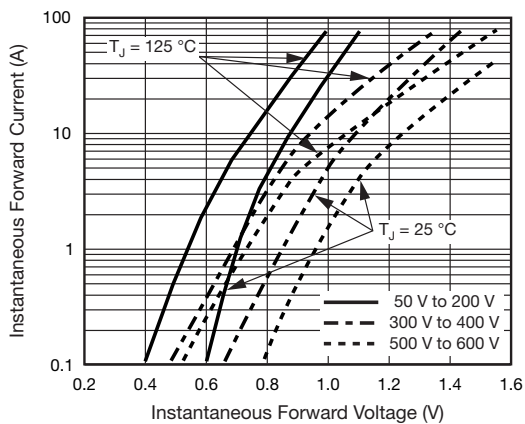
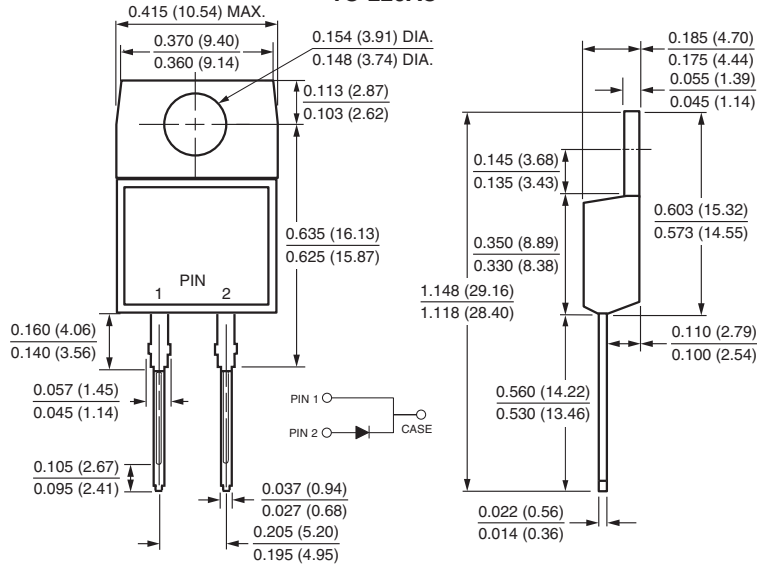


Fig. 3 - Typical Instantaneous Forward Characteristics

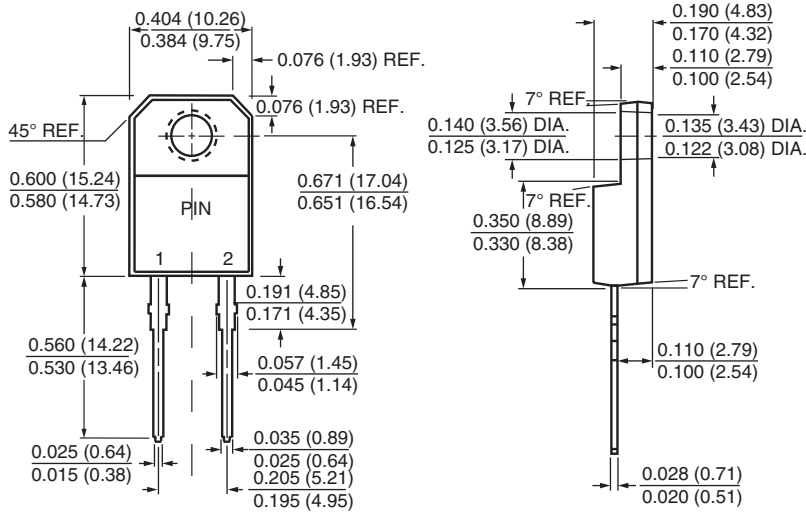


### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

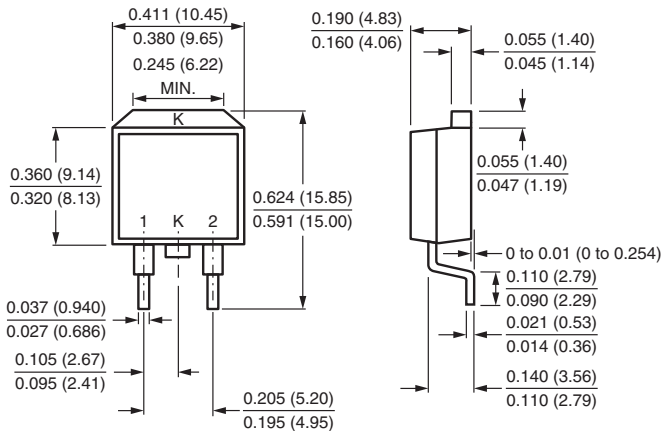
#### TO-220AC



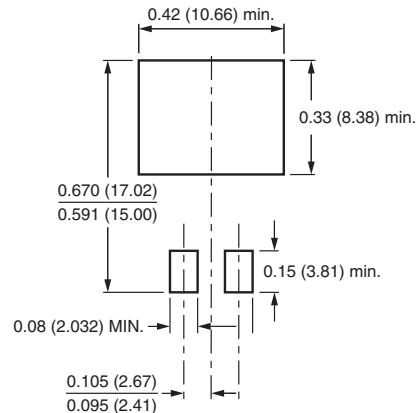
#### ITO-220AC



#### D<sup>2</sup>PAK (TO-263AB)



#### Mounting Pad Layout





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