Certificate Number: Q10561

Certificate Number: E17276

FES16AT - FES16JT

Ultrafast Plastic Rectifiers

PRV : 50 - 600 Volts
Io : 16 Ampere

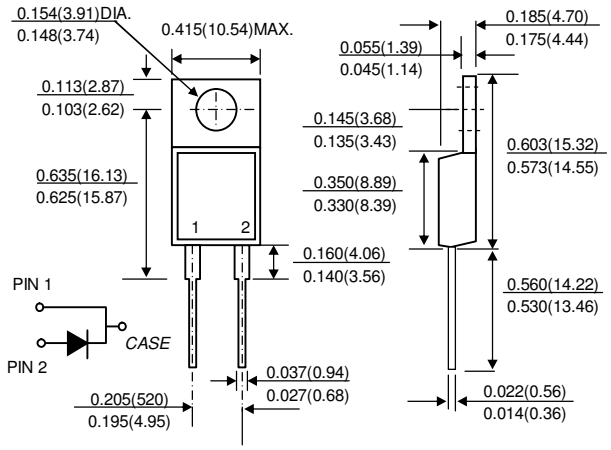
FEATURES :

* 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)

TO-220AC



Dimensions in inches and (millimeters)

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, Tc = 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 Tc = 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 Tc = 25 °C	I_R	10								µA
Rated DC Blocking Voltage Tc = 100 °C	$I_{R(H)}$	500								µA
Maximum Reverse Recovery Time (Note 1)	Trr	35				50				ns
Typical junction capacitance at 4V, 1MHz	Cj	175						145		pF
Maximum Thermal Resistance, Junction to Case	RθJC	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 ; Irr = 0.25 A

RATING AND CHARACTERISTIC CURVES (FES16AT ~ FES16JT)

FIG.1 - FORWARD CURRENT DERATING CURRENT

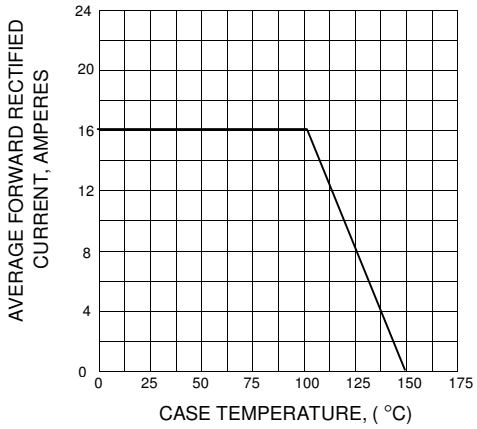


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

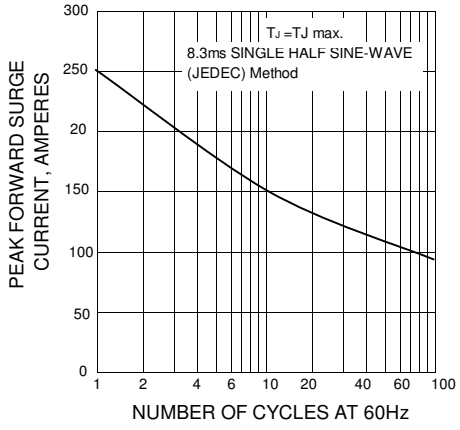


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

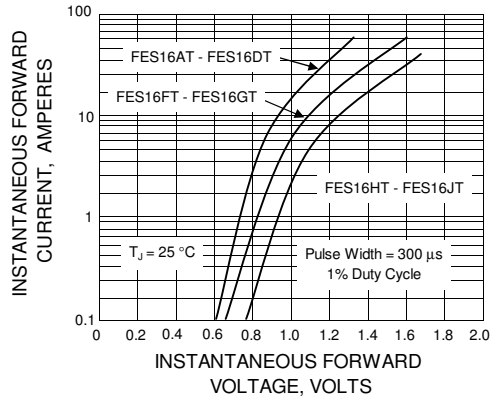


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

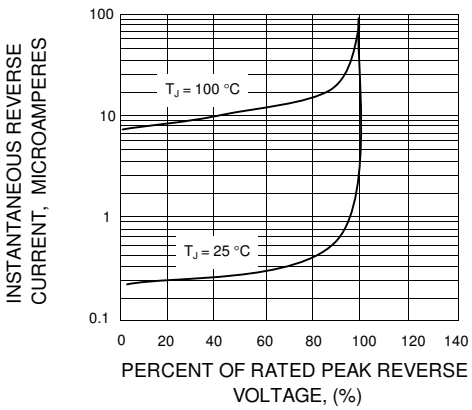


FIG. 5 – TYPICAL JUNCTION CAPACITANCE