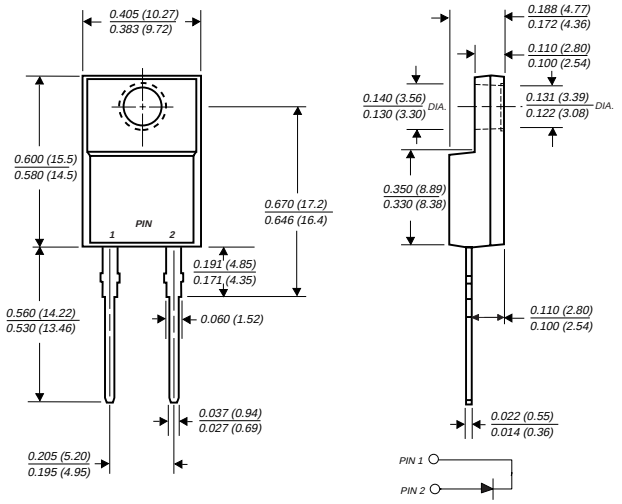
FESF8AT THRU FESF8JT

FAST EFFICIENT PLASTIC RECTIFIER

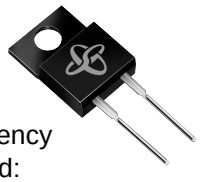
***Reverse Voltage** - 50 to 600 Volts* ***Forward Current** - 8.0 Amperes*

ITO-220AC



Dimensions in inches and (millimeters)

FEATURES



- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- Low leakage, high voltage
- High surge current capability
- Superfast recovery time, for high efficiency
- High temperature soldering guaranteed: 250°C, 0.25" (6.35mm) from case for 10 seconds

MECHANICAL DATA

Case: JEDEC ITO-220AC fully overmolded plastic body over passivated chip
Terminals: Plated lead solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Weight: 0.064 ounce, 1.81 grams
Mounting Torque: 5 in. - lbs. max.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	FESF 8AT	FESF 8BT	FESF 8CT	FESF 8DT	FESF 8FT	FESF 8GT	FESF 8HT	FESF 8JT	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	300	400	500	600	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	350	420	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	Volts
Maximum average forward rectified current at T_C=100°C	$I_{(AV)}$	8.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125.0								Amps
Maximum instantaneous forward voltage at 8.0A	V_F	0.95				1.3		1.5		Volts
Maximum DC reverse current at rated DC blocking voltage T_C=25°C / at T_C=100°C	I_R	10.0 / 500.0								µA
Maximum reverse recovery time (NOTE 1)	t_{rr}	35.0				50.0				ns
Typical junction capacitance (NOTE 2)	C_J	85.0						60.0		pF
Typical thermal resistance (NOTE 3)	$R_{\Theta JC}$	5.0								°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150								°C

NOTES:
(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
(3) Thermal resistance from junction to case mounted on heatsink

GENERAL SEMICONDUCTOR®

RATINGS AND CHARACTERISTIC CURVES FESF8AT THRU FESF8JT

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVES

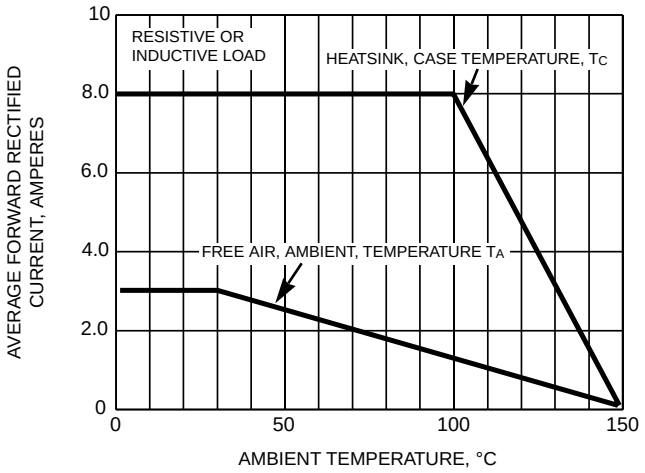


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

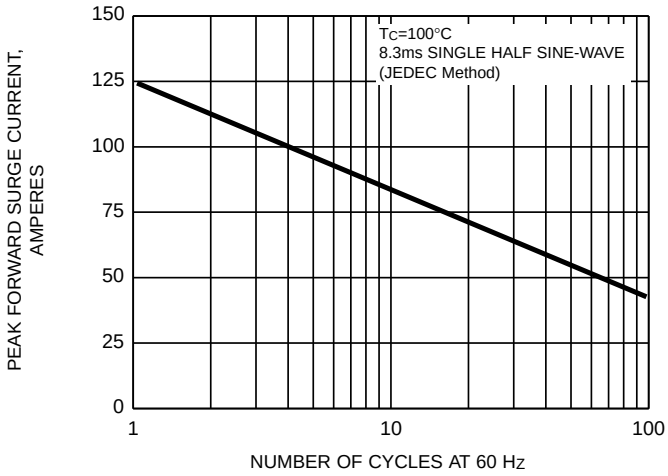


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

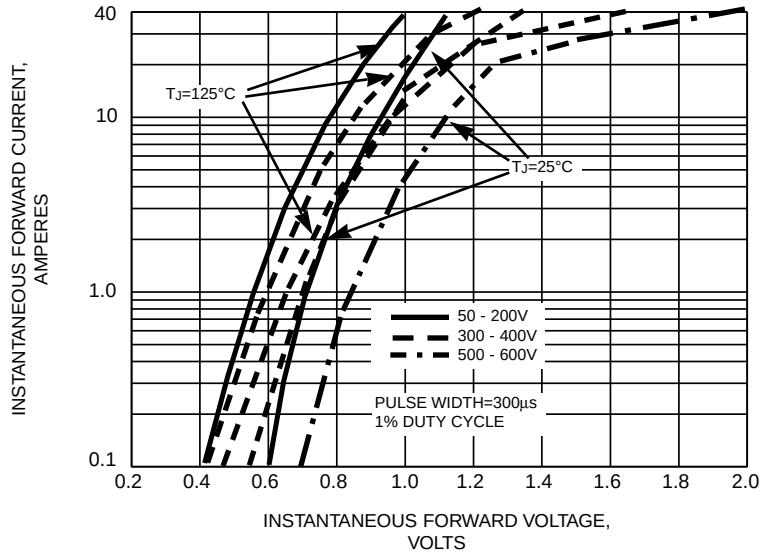


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

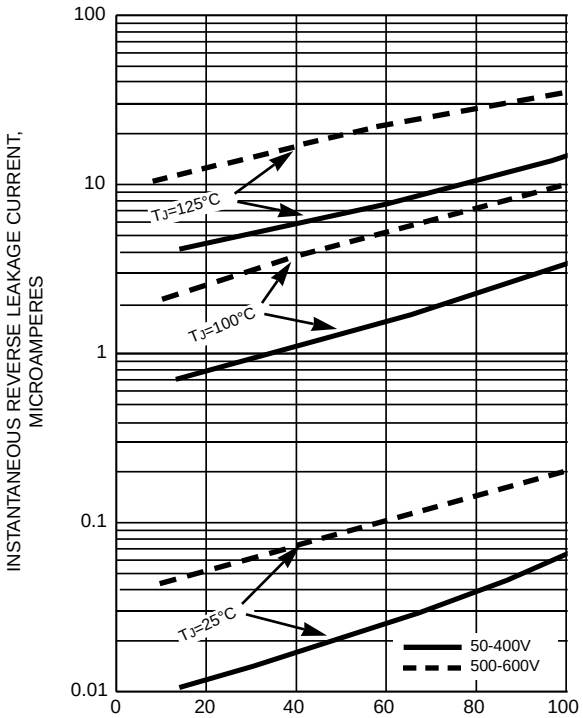
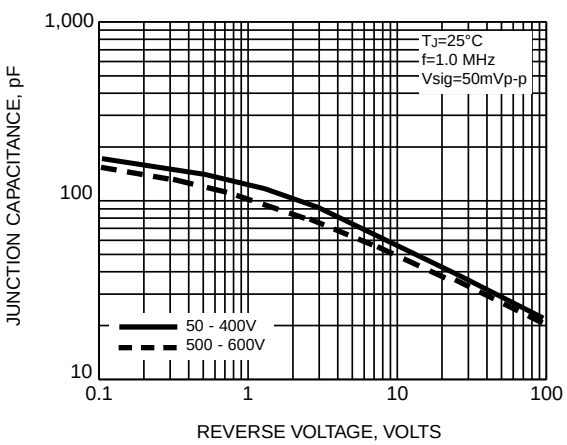


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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