

# FE30JPT

## Ultra fast Plastic Power Rectifiers

VOLTAGE: 600V

CURRENT:30.0A

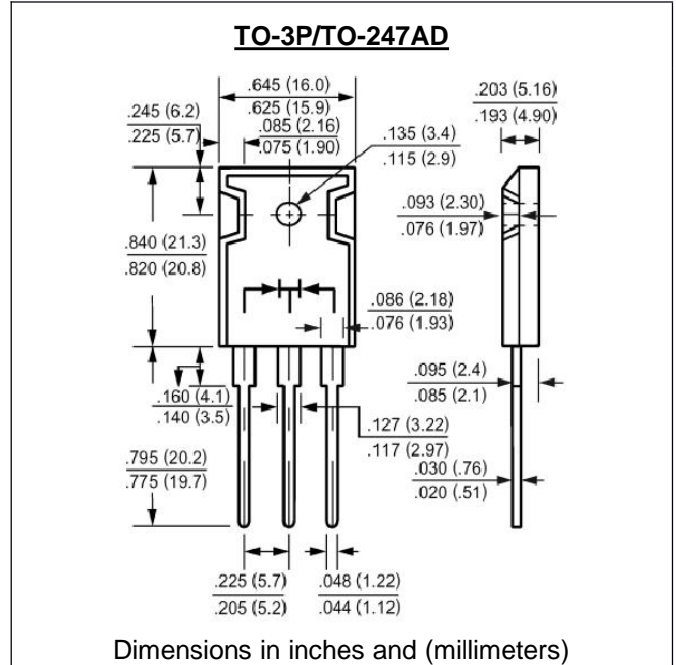


### FEATURE

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Glass passivated chip junctions
- Superfast recovery times for high efficiency
- Low forward voltage, high current capability
- Low thermal resistance
- Low power loss
- High temperature soldering guaranteed

### MECHANICAL DATA

Case: JEDEC TO-247AD molded plastic body over passivated chip  
 Terminals: Plated leads solderable perMIL-STD-750, Method 2026  
 Mounting Position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	FE30JPT	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	600	V
Maximum RMS Voltage	V <sub>rms</sub>	420	V
Maximum DC blocking Voltage	V <sub>dc</sub>	600	V
Maximum Average Forward Rectified at T <sub>c</sub> =100°C	I <sub>f(av)</sub>	30.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	300	A
Maximum Forward Voltage at rated Forward Current and 25°C at 15A	V <sub>f</sub>	1.30	V
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	50	nS
Typical thermal resistance junction to case	R <sub>th(jc)</sub>	1.0	°C/W
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	I <sub>r</sub>	10 100	μA
Storage and Operating Temperature Range	T <sub>stg</sub> , T <sub>j</sub>	-55 to +150	°C

**Note:**

1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A

# RATINGS AND CHARACTERISTIC CURVES FE30JPT

FIG. 1 - FORWARD CURRENT DERATING CURVE

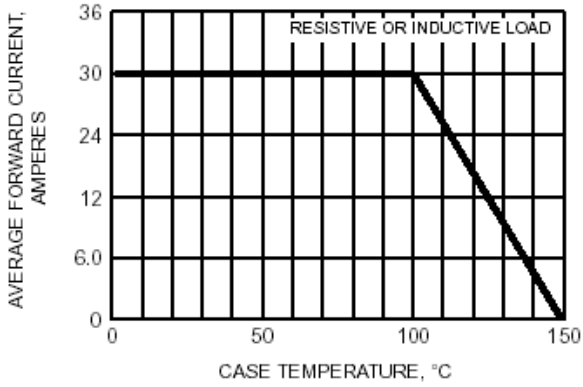


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

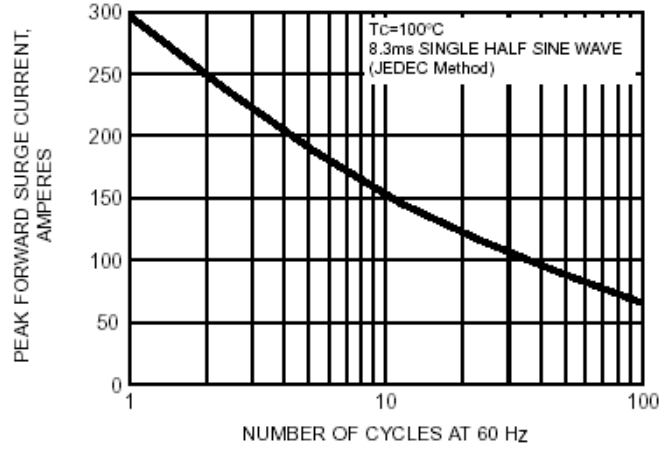


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

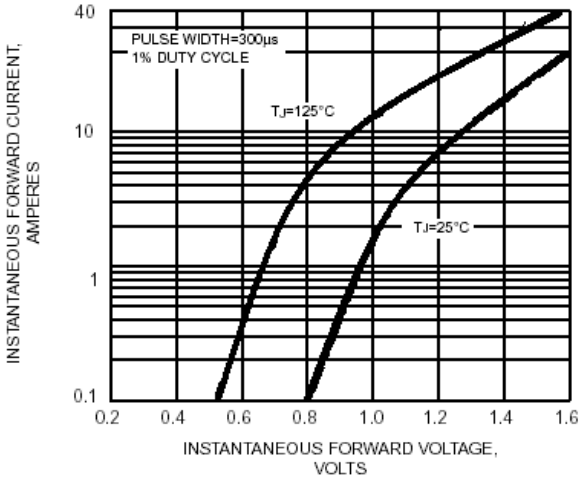


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

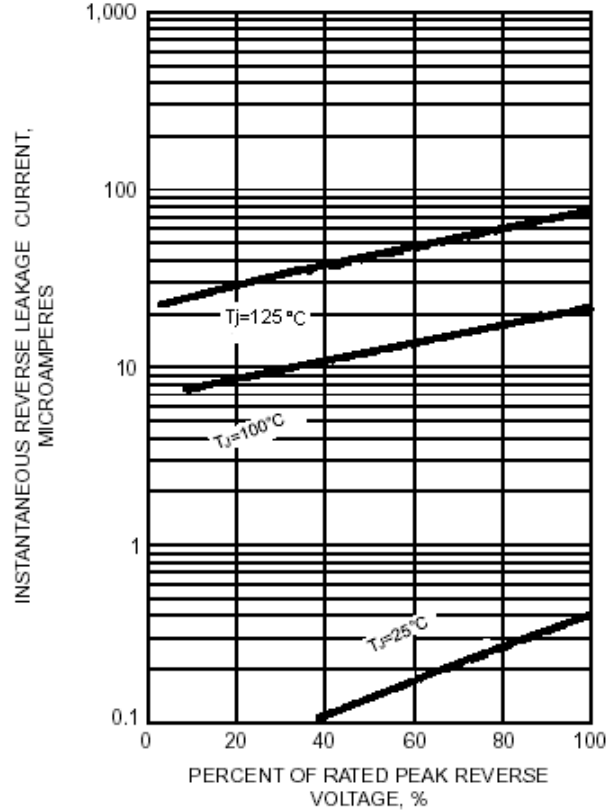


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

