

# FERP16K

## Ultra fast Plastic Rectifiers

VOLTAGE: 800V

CURRENT:16.0A



### FEATURE

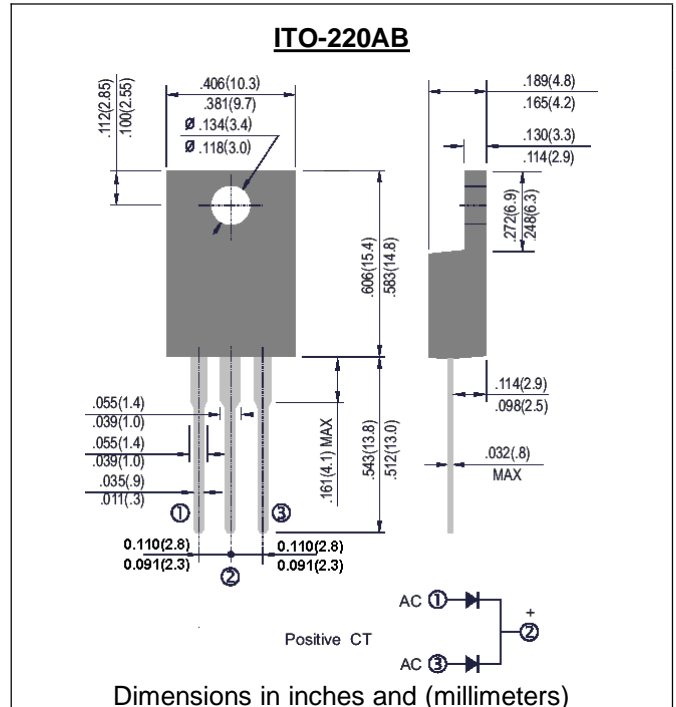
- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultra fast recovery time for high efficiency
- Excellent high temperature switching
- Glass passivated junction
- High voltage and high reliability
- High speed switching
- Low forward voltage

### MECHANICAL DATA

Case: JEDEC ITO-220AB molded plastic body over passivated chip

Terminals: Plated Insert leads, solderable per MIL-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)

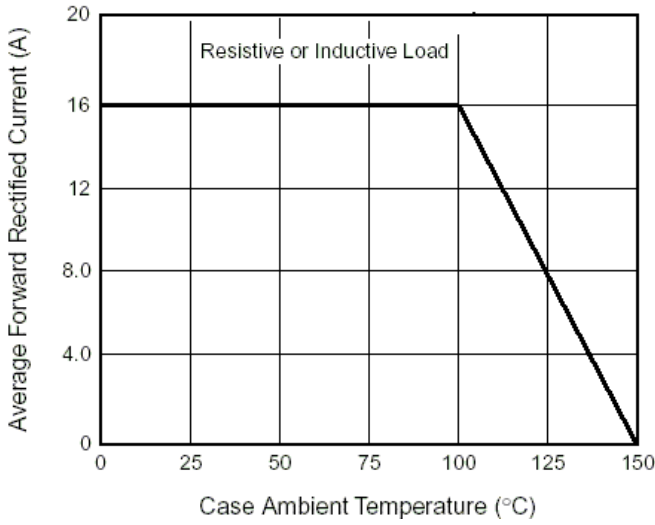
	SYMBOL	FERP16K	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	800	V
Maximum RMS Voltage	V <sub>rms</sub>	640	V
Maximum DC blocking Voltage	V <sub>dc</sub>	800	V
Maximum Average Forward Rectified at T <sub>c</sub> =100°C	I <sub>f(av)</sub>	16.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	125	A
Maximum Forward Voltage at Forward Current at 8.0A	V <sub>f</sub>	1.85	V
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	75	nS
Typical thermal resistance junction to case	R <sub>θ jc</sub>	5.0	°C/W
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	I <sub>r</sub>	10 100	μA μA
Storage and Operating Temperature Range	T <sub>stg, Tj</sub>	-55 to +150	°C

#### Note:

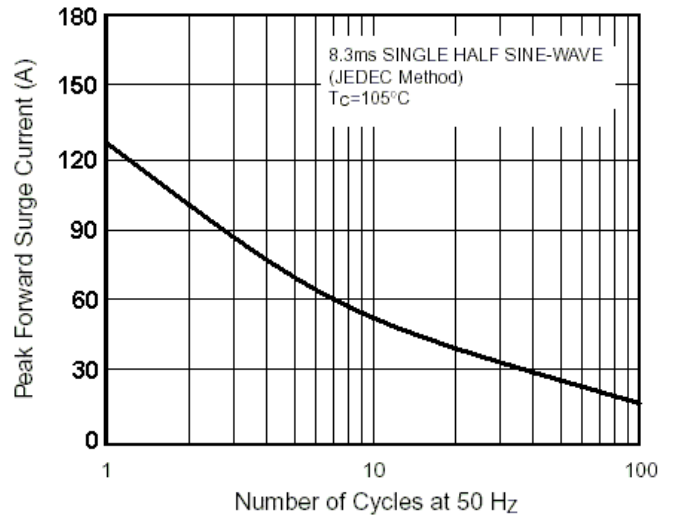
1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A

## RATINGS AND CHARACTERISTIC CURVES FERP16K

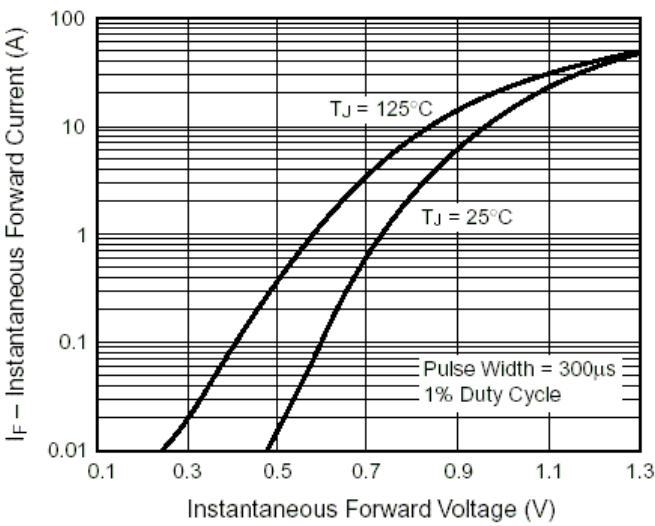
### Forward Current Derating Curve



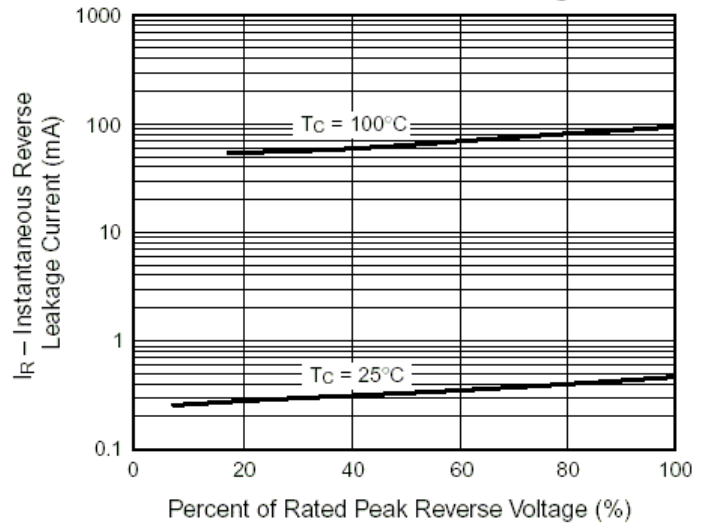
### Maximum Non-Repetitive Peak Forward Surge Current Per Leg



### Typical Instantaneous Forward Characteristics Per Leg



### Typical Reverse Leakage Characteristics Per Leg



### Typical Junction Capacitance Per Leg

