FESP05K

Ultra fast Plastic Power Rectifiers

VOLTAGE: 800V **CURRENT: 5.0A**

GULF SEMI

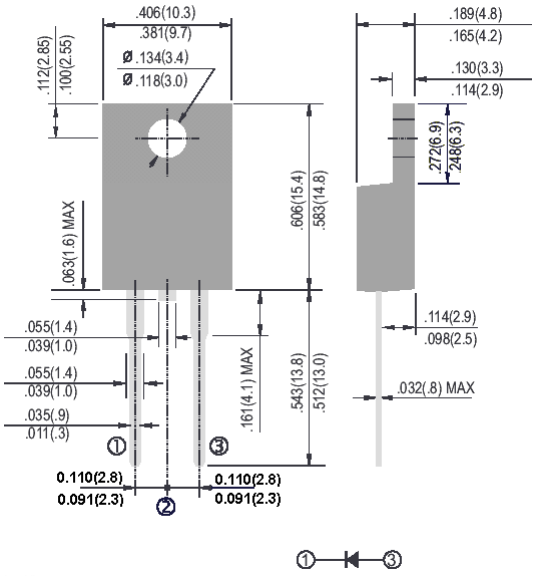
FEATURE

- 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

MECHANICAL DATA

Case: JEDEC ITO-220AC molded plastic body over passivated chip
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any

ITO-220AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	FESP05K	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	800	V
Maximum RMS Voltage	Vrms	560	V
Maximum DC blocking Voltage	Vdc	800	V
Maximum Average Forward Rectified at Tc =100°C	If(av)	5.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	120	A
Maximum Forward Voltage at rated Forward Current and 25°C	Vf	2.2	V
Maximum Reverse Recovery Time (Note 1)	Trr	70	nS
Typical thermal resistance junction to case	Rth(jc)	5.0	℃/W
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	10.0 100.0	μA
Storage and Operating Temperature Range	Tstg, Tj	-55 to +150	°C

Note:
Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A

Fig. 1 – Forward Current Derating Curve

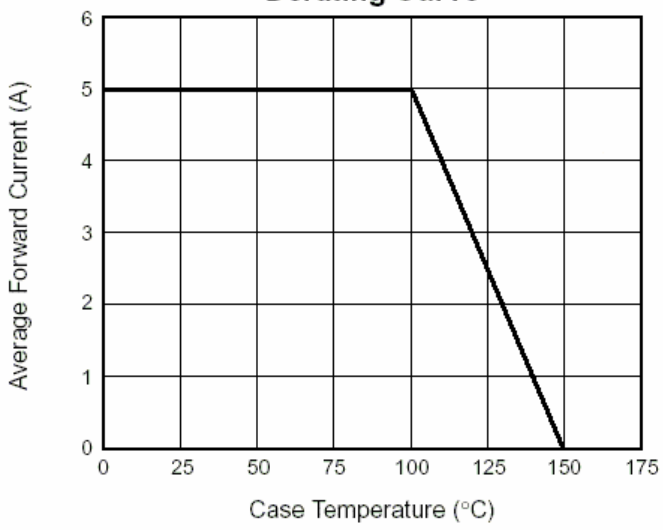


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

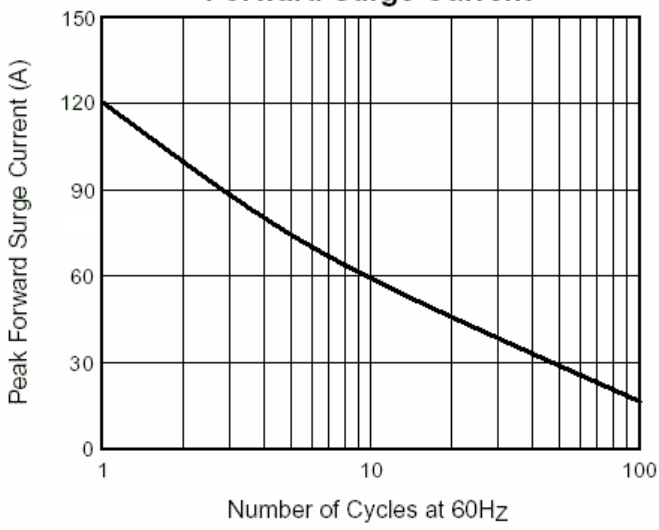


Fig. 3 – Typical Forward Volyage

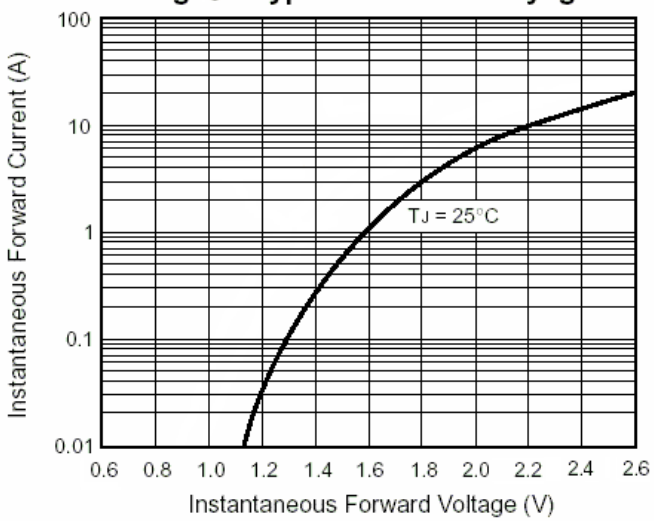


Fig. 4 – Typical Reverse Current

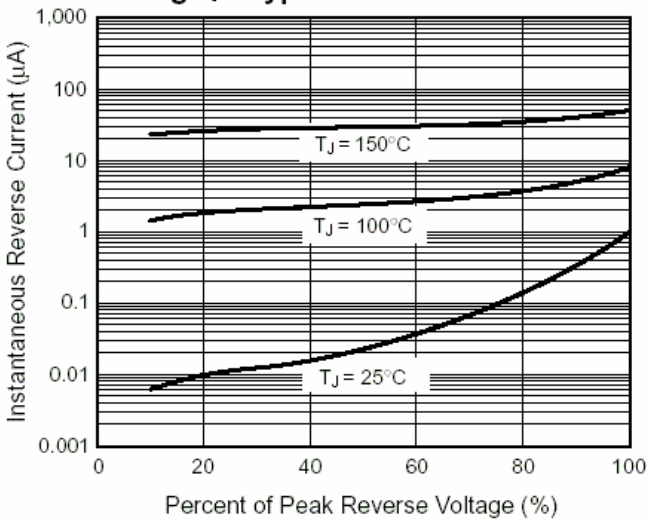


Fig. 5 – Typical Junction Capacitance

