

UESP05F

Ultra fast Plastic Power Rectifiers

VOLTAGE: 300V

CURRENT: 5.0A



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

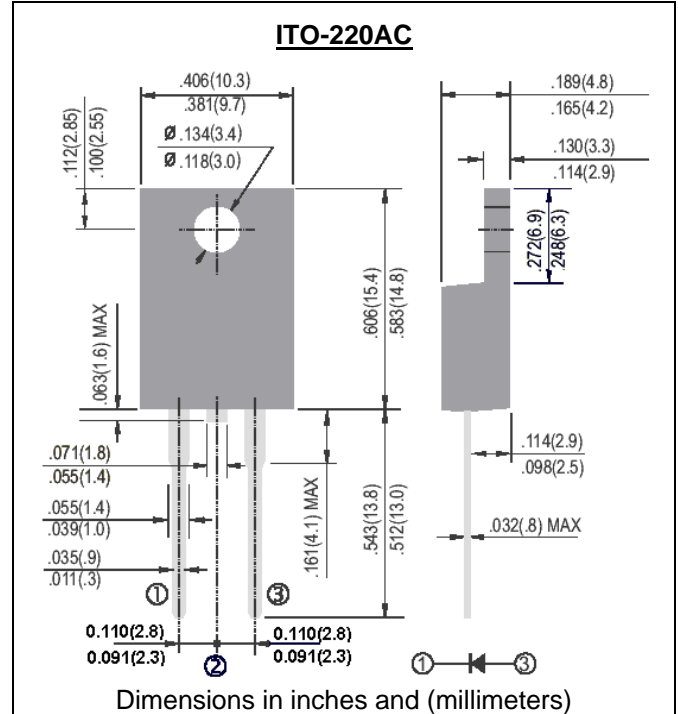
MECHANICAL DATA

Case: JEDEC TO-220 molded plastic body over passivated chip

Terminals: Plated Insert leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

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	UESP05F	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	300	V
Maximum RMS Voltage	V _{rms}	210	V
Maximum DC blocking Voltage	V _{dc}	300	V
Maximum Average Forward Rectified at T _c =120°C	I _{f(av)}	5.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	125	A
Maximum Forward Voltage at rated Forward Current and 25°C at 5A	V _f	1.3	V
Maximum Reverse Recovery Time (Note 1)	T _{rr}	35	nS
Typical thermal resistance junction to case	R _{th(jc)}	5.0	°C/W
Maximum DC Reverse Current T _a =25°C at rated DC blocking voltage T _a =125°C	I _r	10 100	μA
Storage and Operating Temperature Range	T _{stg, Tj}	-55 to +150	°C

Note:

Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A

RATINGS AND CHARACTERISTIC CURVES UESP05F

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

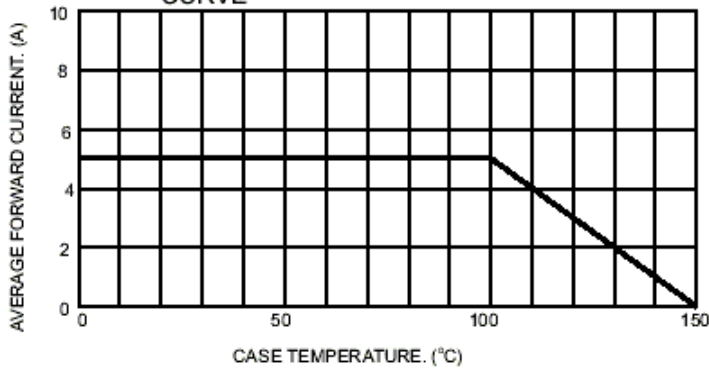


FIG.2- TYPICAL REVERSE CHARACTERISTICS

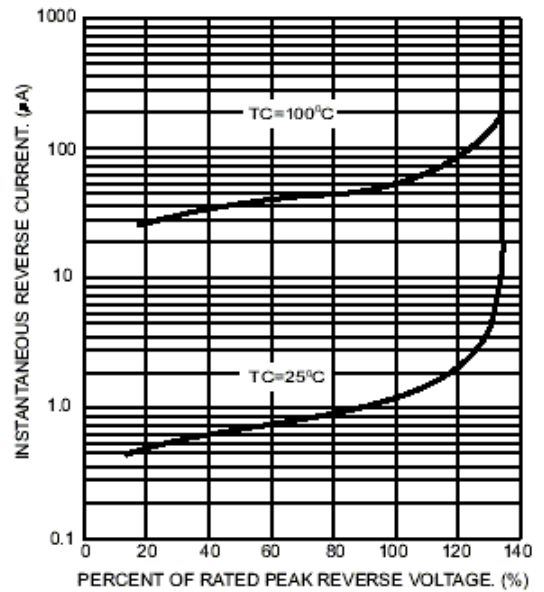


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

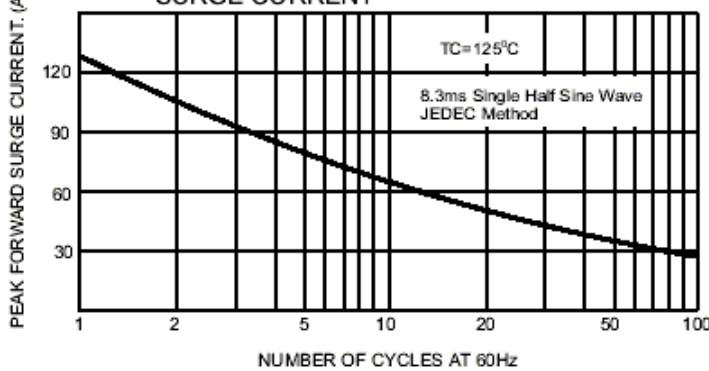


FIG.5- TYPICAL FORWARD CHARACTERISTICS

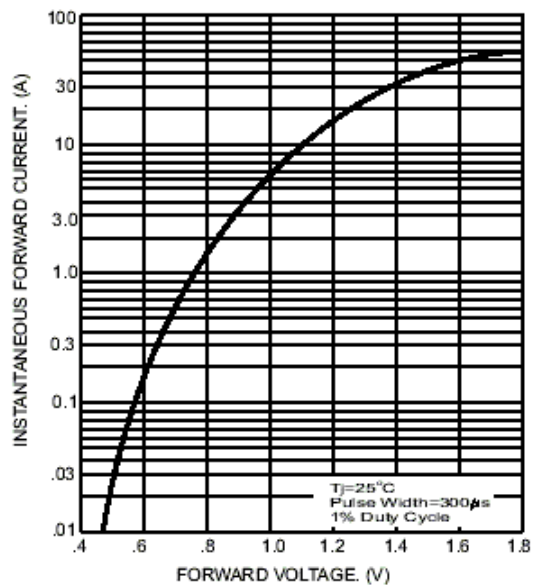


FIG.4- TYPICAL JUNCTION CAPACITANCE

