

UESP10B

Ultra fast Plastic Power Rectifiers

VOLTAGE: 100V

CURRENT:10.0A

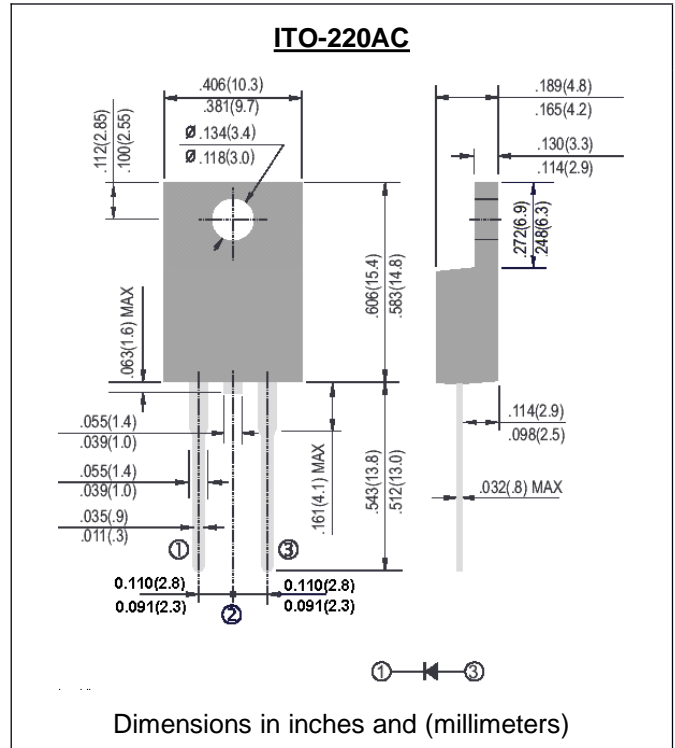


FEATURE

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-220AC 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	UESP10B	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	100	V
Maximum RMS Voltage	V _{rms}	70	V
Maximum DC blocking Voltage	V _{dc}	100	V
Maximum Average Forward Rectified at T _c =100°C	I _{f(av)}	10.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	100	A
Maximum Forward Voltage at rated Forward Current at 10A	V _f	0.95	V
Maximum Reverse Recovery Time (Note 1)	T _{rr}	35	nS
Typical thermal resistance junction to case	R _{th(jc)}	4.2	°C/W
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I _r	10 500	μA μA
Storage and Operating Temperature Range	T _{stg} , T _j	-55 to +150	°C

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

RATINGS AND CHARACTERISTIC CURVES UESP10B

FIG. 1 - FORWARD CURRENT DERATING CURVE

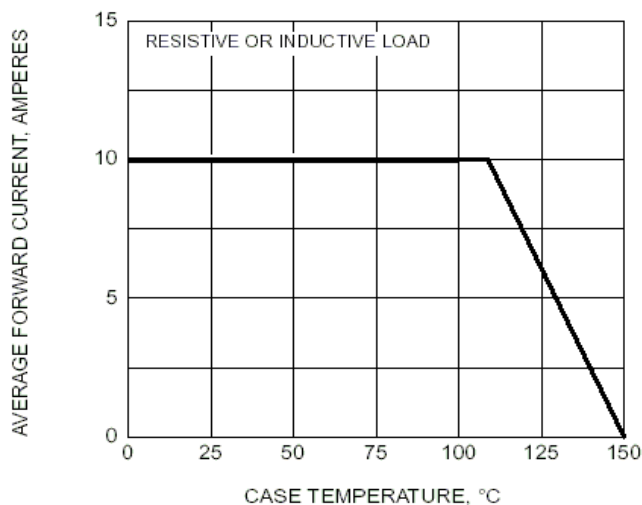


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

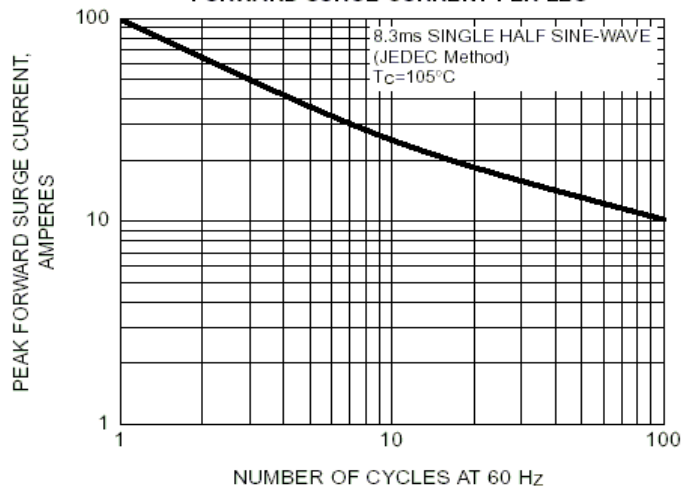


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

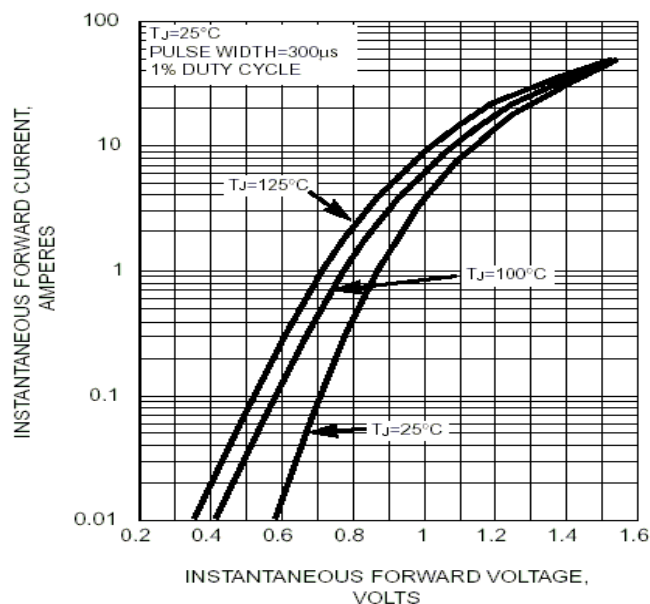


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

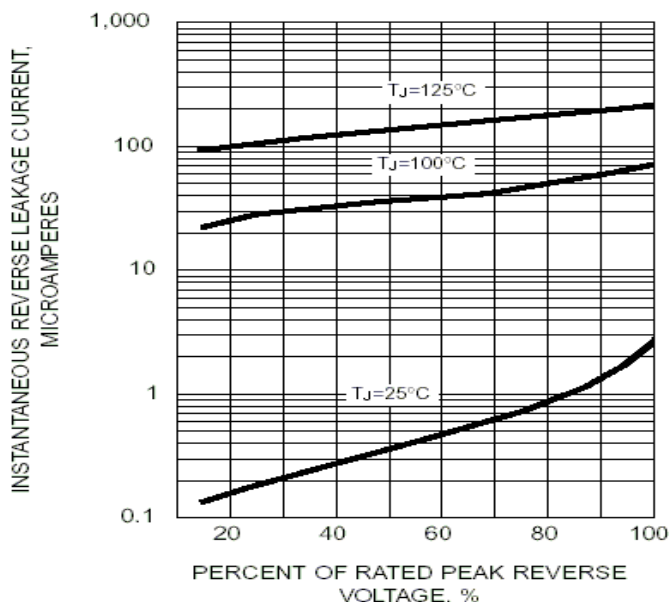


FIG. 5 - REVERSE SWITCHING CHARACTERISTICS PER LEG

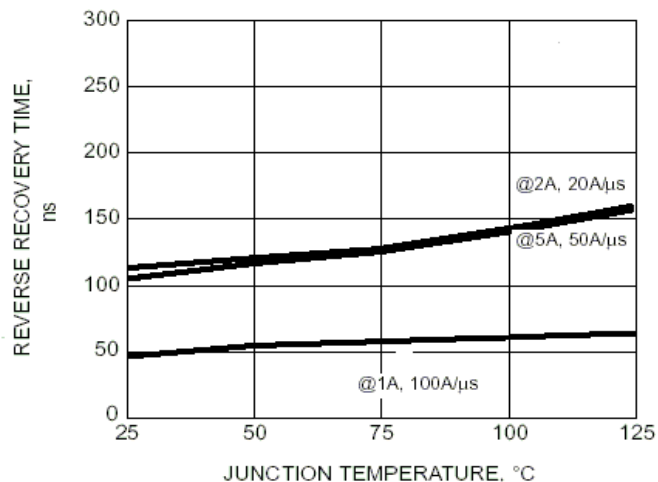


FIG. 6 - TYPICAL JUNCTION CAPACITANCE PER LEG

