

UERA10B

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

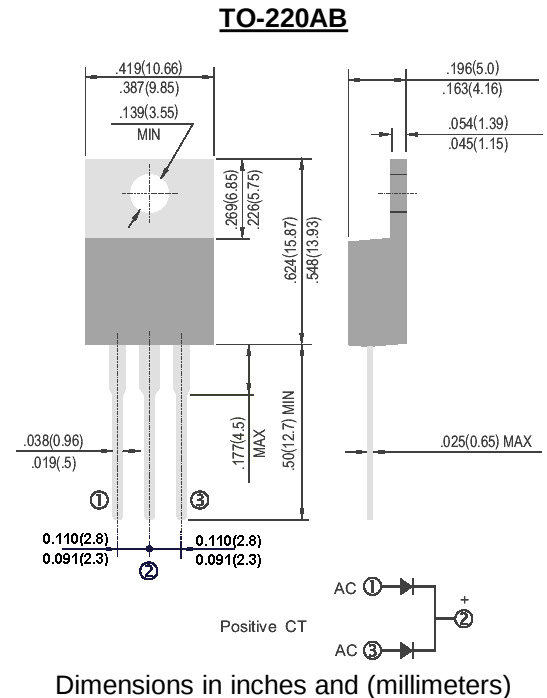
MECHANICAL DATA

Case: JEDEC TO-220 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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	UERA10B	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	100	V
Maximum RMS Voltage	Vrms	70	V
Maximum DC blocking Voltage	Vdc	100	V
Maximum Average Forward Rectified at Tc =100°C	If(av)	10.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	150	A
Maximum Forward Voltage at Forward Current and 25°C at 5.0A	Vf	0.95	V
Maximum Reverse Recovery Time (Note 1)	Trr	35	nS
Typical thermal resistance junction to case	R θ jc	5.0	°C/W
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	10 100	μA μA
Storage and Operating Temperature Range	Tstg, Tj	-55 to +150	°C

Note:

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

RATINGS AND CHARACTERISTIC CURVES

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Fig. 1 – Forward Current Derating Curve

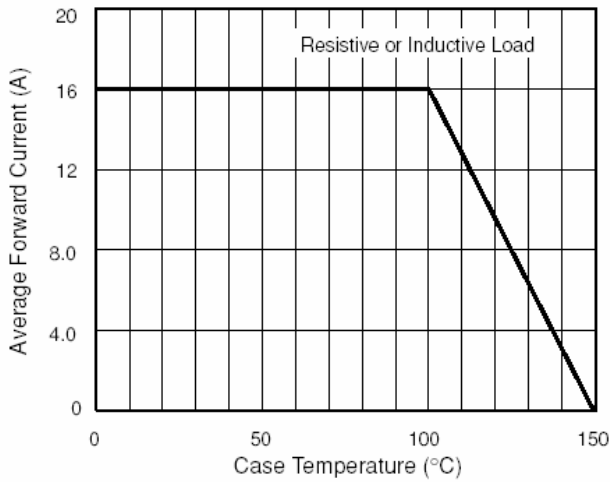


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

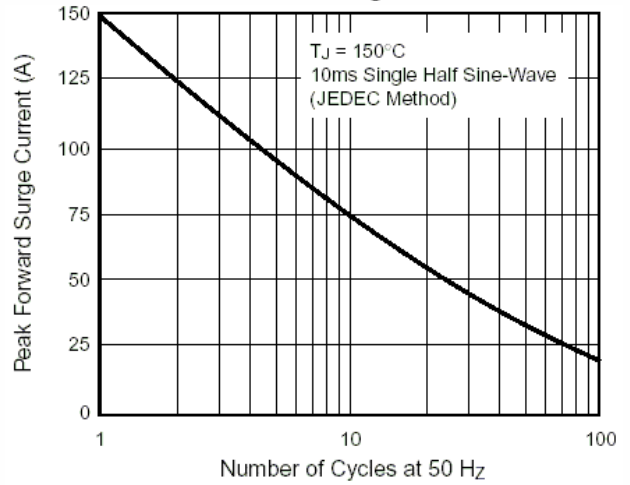


Fig. 3 – Typical Instantaneous Forward Characteristics Per Leg

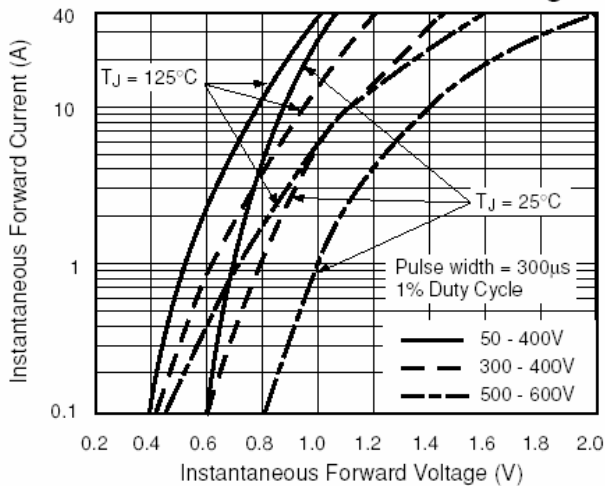


Fig. 4 – Typical Reverse Characteristics Per Leg

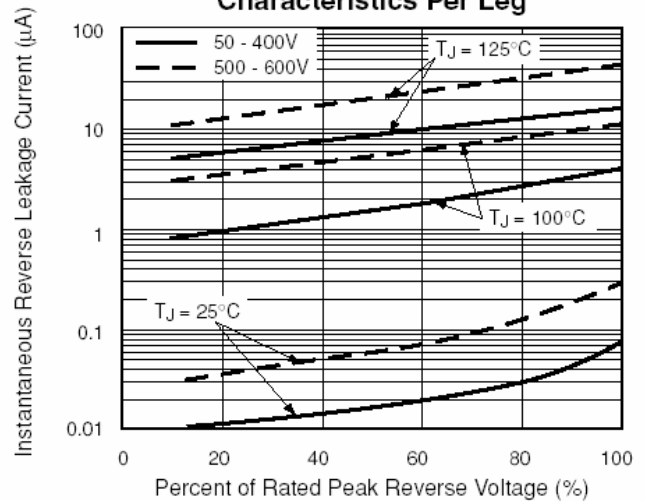


Fig. 5 – Typical Junction Capacitance Per Leg

