

UGSA12J

Ultra fast Plastic Power Rectifiers

VOLTAGE: 600V

CURRENT:12.0A

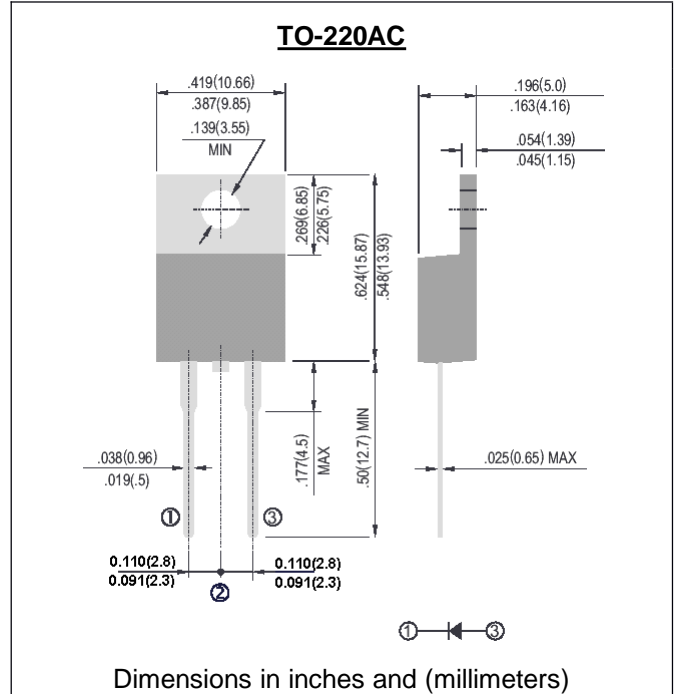


FEATURE

- 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	UGSA12J	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	600	V
Maximum RMS Voltage	V _{rms}	420	V
Maximum DC blocking Voltage	V _{dc}	600	V
Maximum Average Forward Rectified at T _c =100°C	I _{f(av)}	12.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	120	A
Maximum Forward Voltage at rated Forward Current and 25°C	V _f	2.9	V
Maximum Reverse Recovery Time (Note 1)	T _{rr}	20	nS
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I _r	10 100	μA
Typical thermal resistance junction to case	R _{th(jc)}	1.7	°C/W
Storage and Operating Temperature Range	T _{stg} , T _j	-55 to +150	°C

Note:

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

Fig. 1 – Maximum Forward Current Derating Curve

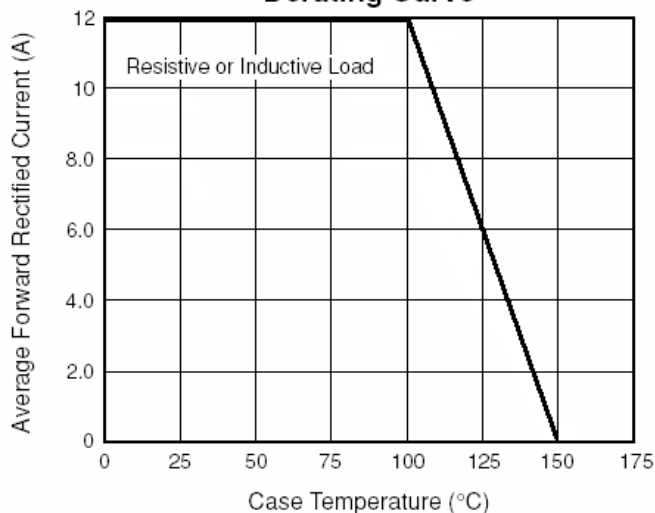


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

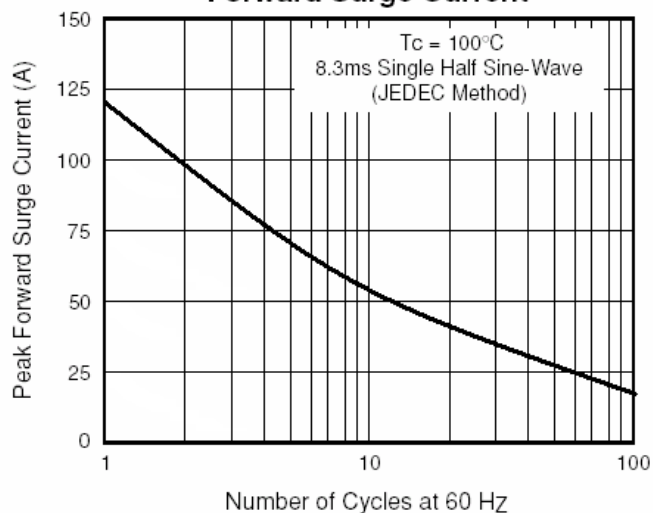


Fig. 3 – Typical Instantaneous Forward Characteristics

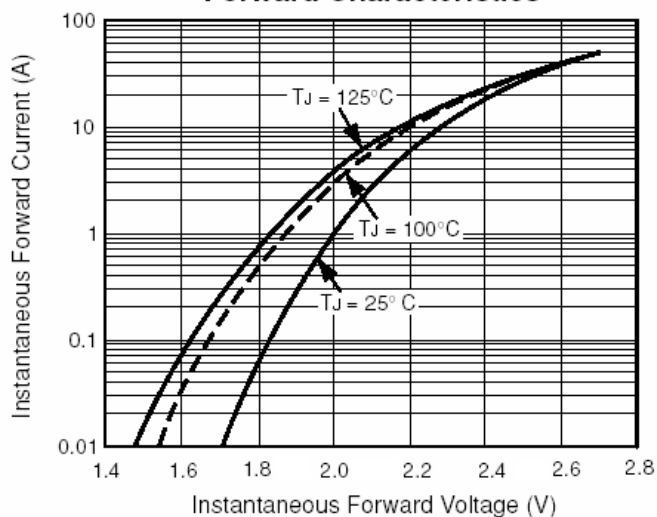


Fig. 4 – Typical Reverse Leakage Characteristics

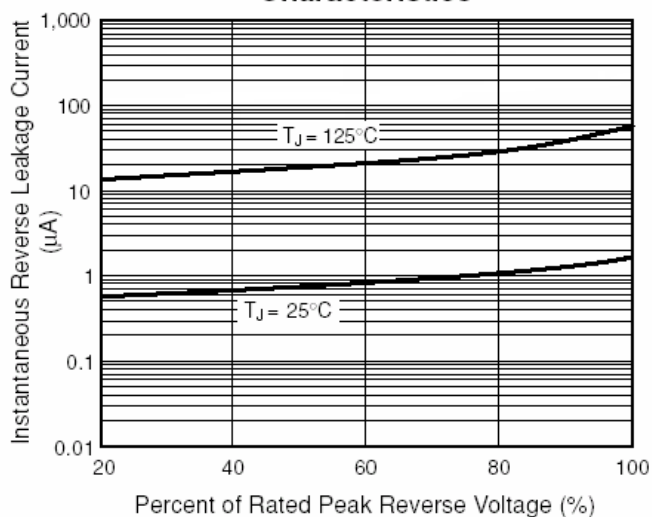


Fig. 5 – Typical Junction Capacitance

