

UGSP04J

Ultra fast Plastic Power Rectifiers

VOLTAGE: 600V

CURRENT:10.0A

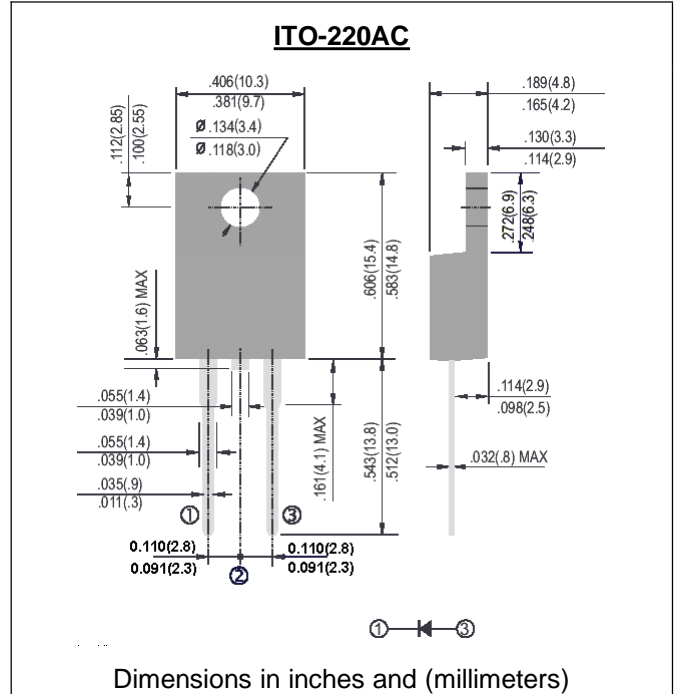


FEATURE

- 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 | UGSP04J | 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)} | 4.0 | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | I _{fsm} | 80 | A |
| Maximum Forward Voltage at rated Forward Current and 25°C at 4A | V _f | 1.7 | V |
| Maximum Reverse Recovery Time (Note 1) | T _{rr} | 25 | 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 | I _r | 10.0 100.0 | μA μA |
| 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

RATINGS AND CHARACTERISTIC CURVES UGSP04J

FIG. 1 - FORWARD CURRENT DERATING CURVE

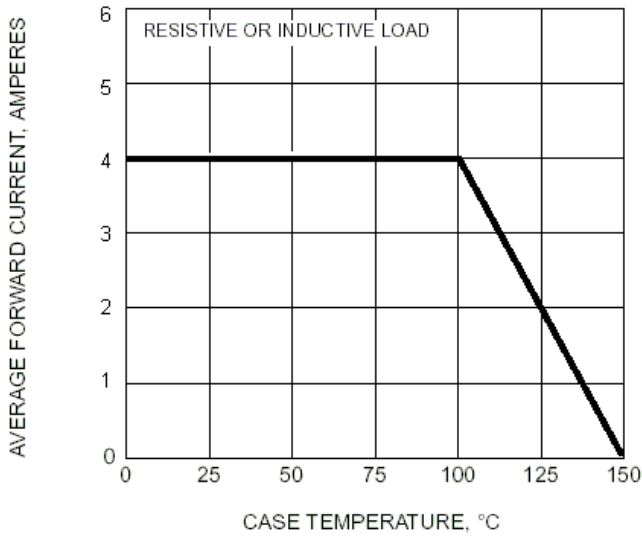


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

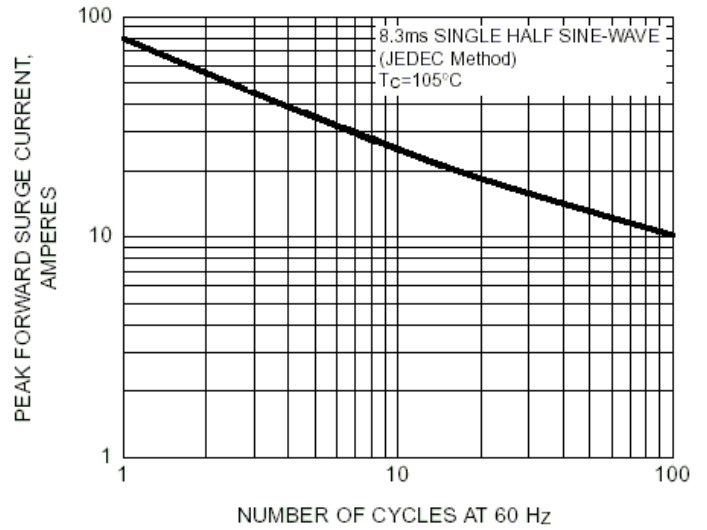


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

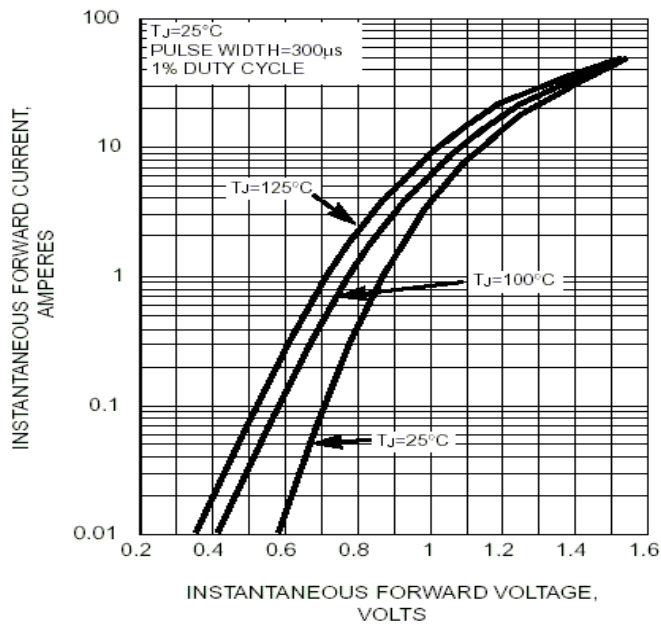


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

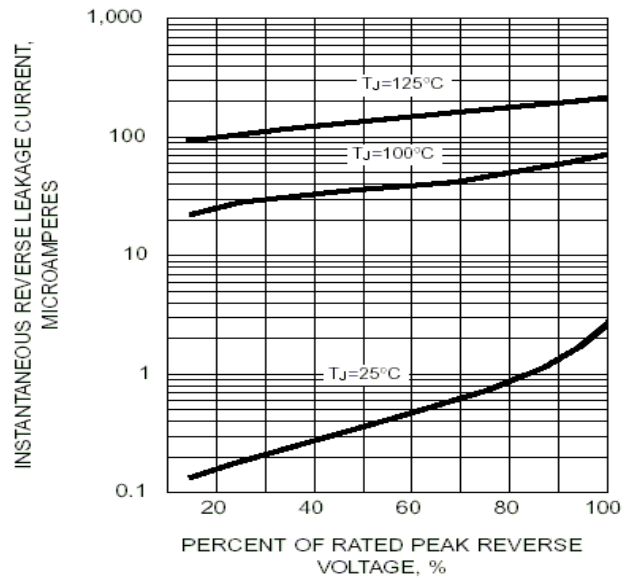


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

