

UGSP05D

Ultra fast Plastic Power Rectifiers

VOLTAGE: 200V

CURRENT: 5.0A

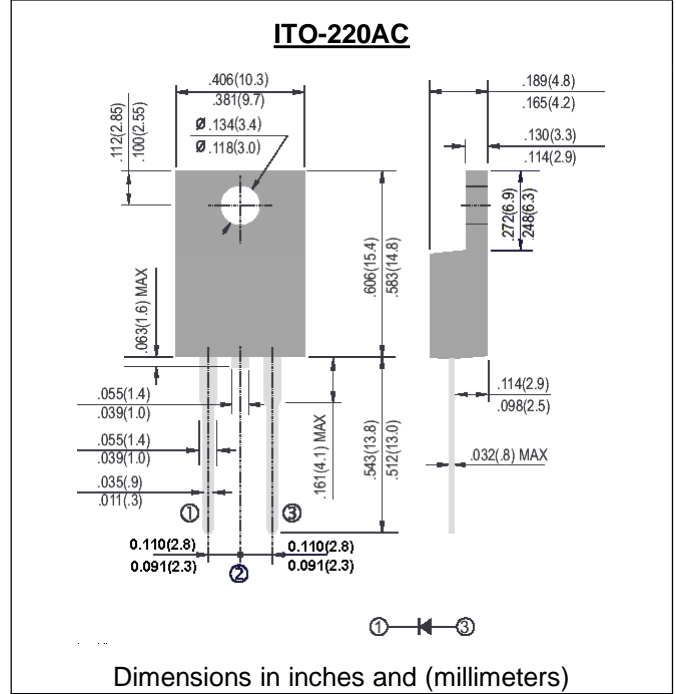


FEATURE

- 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 ITO-220AC 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 | UGSP05D | units |
|--|----------------------|-------------|----------|
| Maximum Recurrent Peak Reverse Voltage | V _{rrm} | 200 | V |
| Maximum RMS Voltage | V _{rms} | 140 | V |
| Maximum DC blocking Voltage | V _{dc} | 200 | 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} | 65 | A |
| Maximum Forward Voltage at rated Forward Current and 25°C at 5A | V _f | 1.2 | 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 | 10 100 | μA μA |
| Storage and Operating Temperature Range | T _{stg, 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 UGSP5D

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

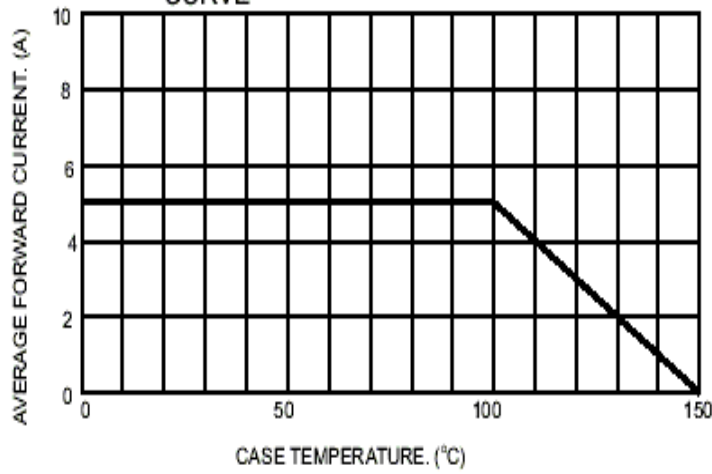


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

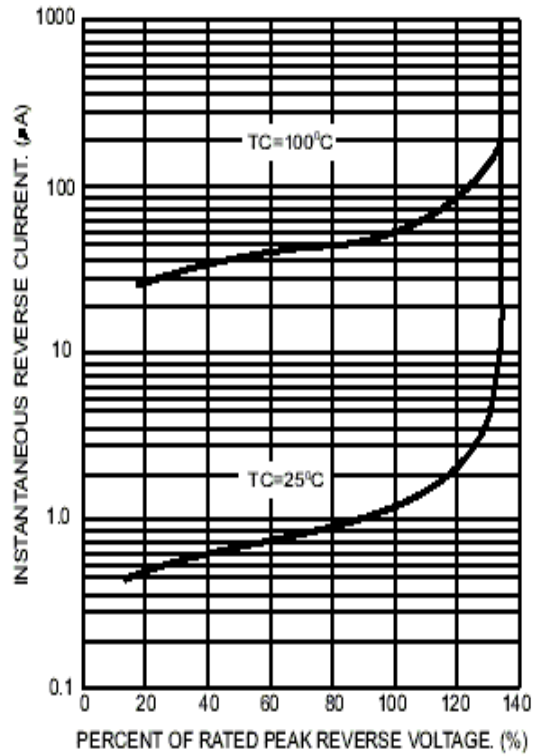


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

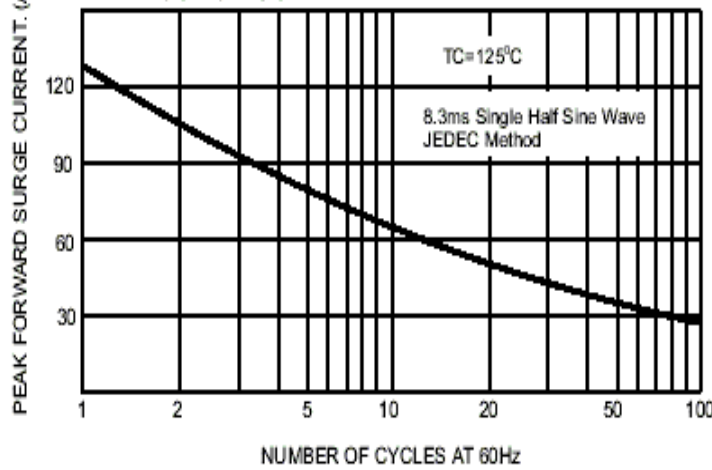


FIG.5- TYPICAL FORWARD CHARACTERISTICS

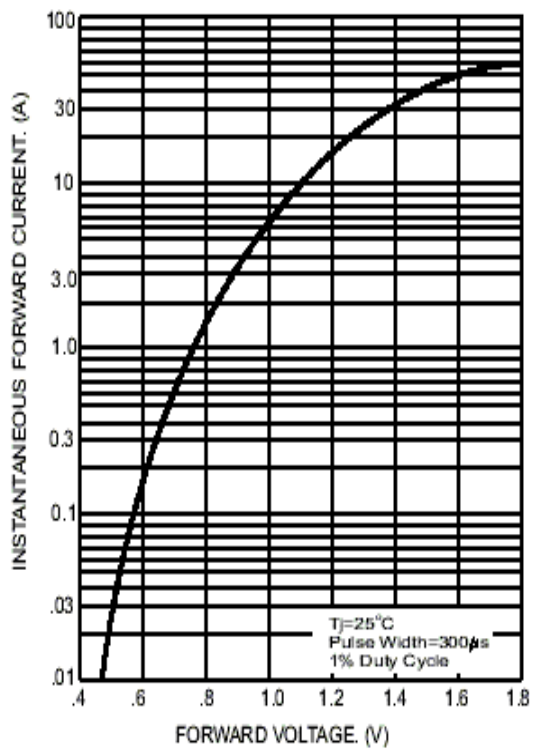


FIG.4- TYPICAL JUNCTION CAPACITANCE

