

UGSP05G

Ultra fast Plastic Rectifiers

VOLTAGE: 400V

CURRENT:5.0A

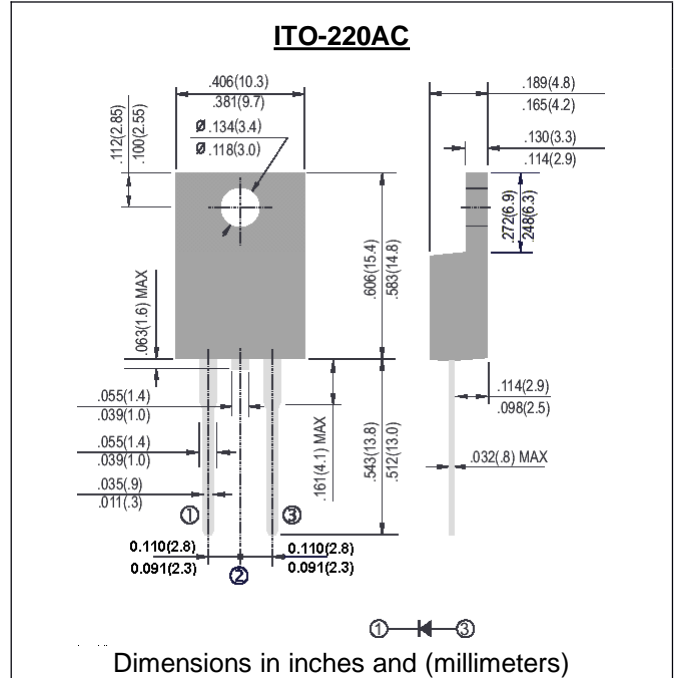


FEATURE

- 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 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)

Parameter	SYMBOL	UGSP05G	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	400	V
Maximum RMS Voltage	V _{rms}	280	V
Maximum DC blocking Voltage	V _{dc}	400	V
Maximum Average Forward Rectified at T _c =111°C	I _{f(av)}	5.0	A
Non-repetitive Peak Forward Surge Current 50Hz half sine- wave	I _{fsm}	80	A
Maximum Forward Voltage at Forward Current 5A and 25°C	V _f	1.53	V
Maximum Reverse Recovery Time (Note 1)	T _{rr}	32	nS
Typical thermal resistance junction to case	R _{th(jc)}	5.0	°C/W
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I _r	1.0 200	μA
Typical thermal resistance junction to case	R _{th(jc)}	5.0	°C/W
Storage and Operating Temperature Range	T _{stg} , T _j	-40 to +150	°C

Note:

1. Reverse Recovery Condition Ta =25°C, I_{fm} =5.0A, -di/dt =50A/us

RATINGS AND CHARACTERISTIC CURVES UGSP05G

Fig. 1 – Forward Current Derating Curve

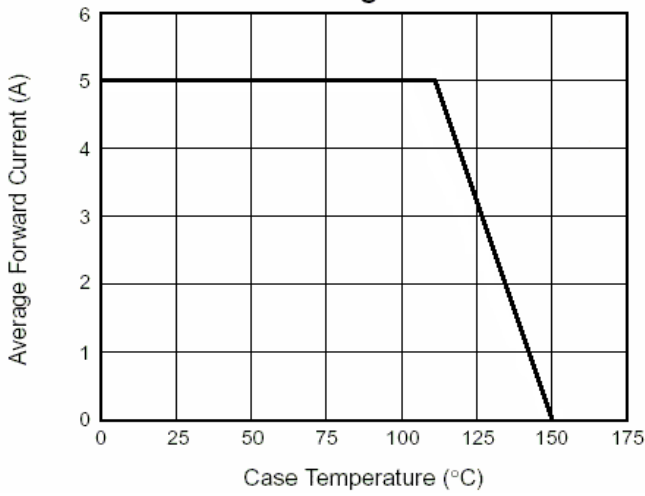


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

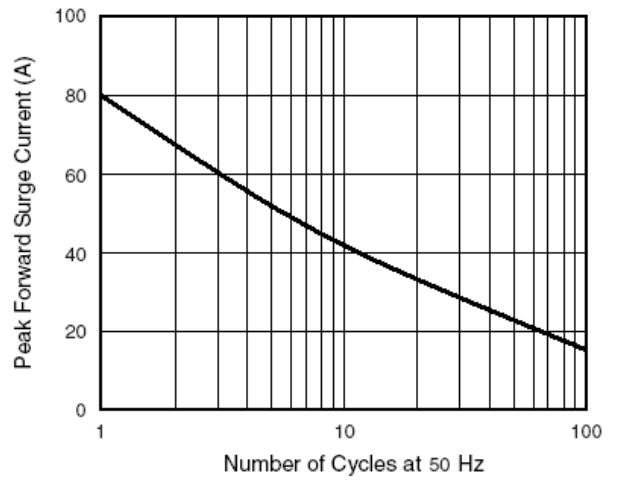


Fig. 3 – Typical Instantaneous Forward Characteristics Per Leg

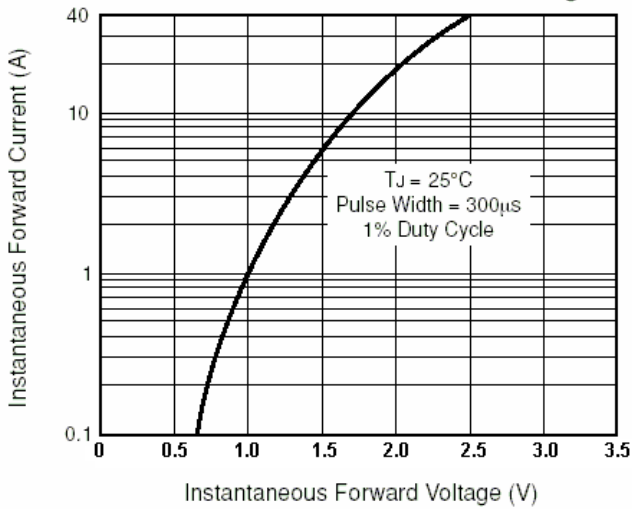


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

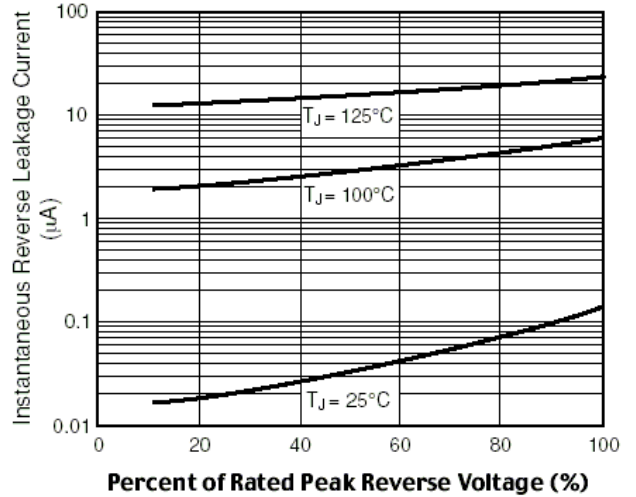


Figure 5. Typical Junction Capacitance

