

UGSP05J

Ultra fast Plastic Rectifiers

VOLTAGE: 600V

CURRENT:5.0A

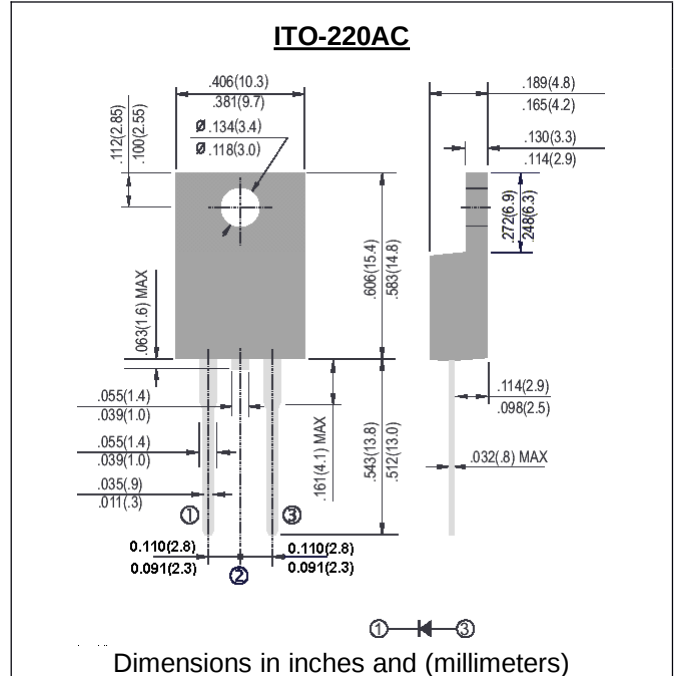


FEATURE

- 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	UGSP05J	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	600	V
Maximum RMS Voltage	Vrms	420	V
Maximum DC blocking Voltage	Vdc	600	V
Maximum Average Forward Rectified at Tc=107°C	If(av)	5.0	A
Non-repetitive Peak Forward Surge Current 50Hz half sine- wave	Ifsm	80	A
Maximum Forward Voltage at Forward Current at 5A and 25°C	Vf	1.7	V
Maximum Reverse Recovery Time (Note 1)	Trr	40	nS
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	5 200	μA
Typical thermal resistance junction to case	Rth(jc)	5.0	°C/W
Storage and Operating Temperature Range	Tstg, Tj	-40 to +150	°C

Note:

1. Reverse Recovery Condition Ta =25°C, Ifm =5.0A, -di/dt =50A/us

RATINGS AND CHARACTERISTIC CURVES UGSP05J

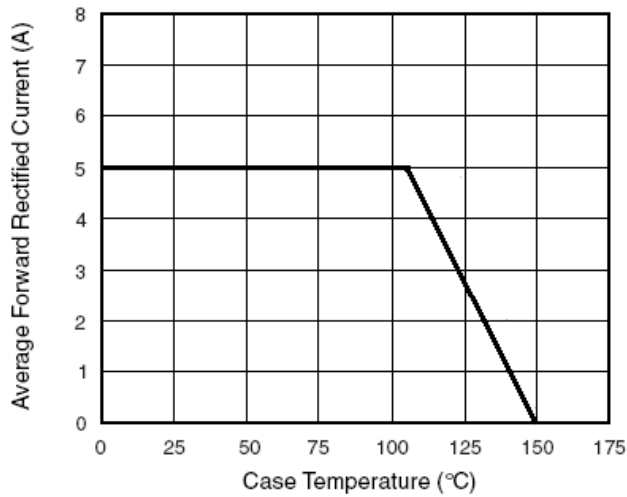


Figure 1. Forward Current Derating Curve

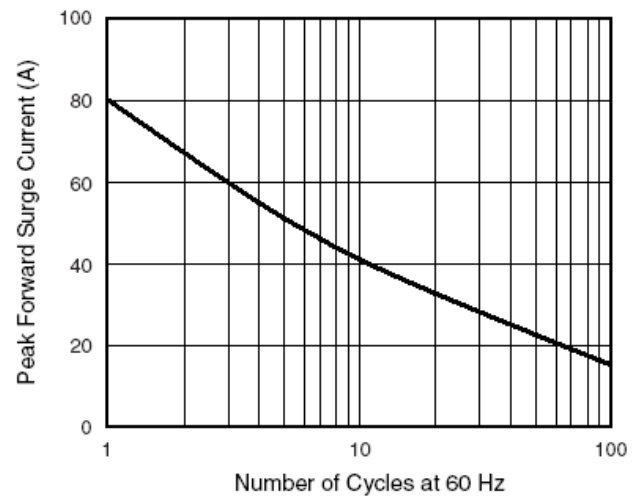


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

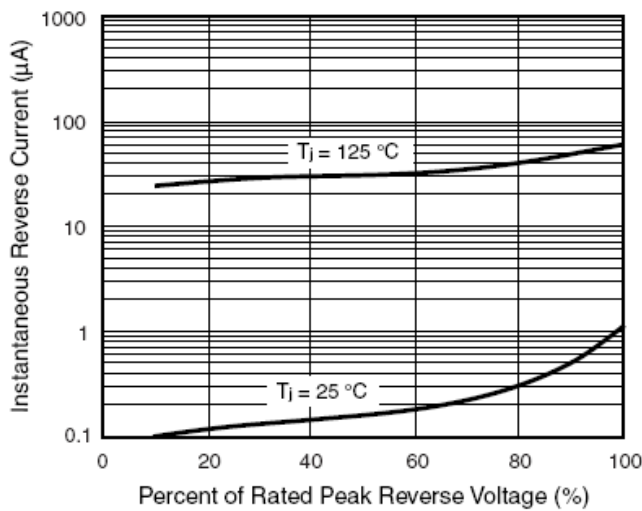


Figure 3. Typical Reverse Characteristics

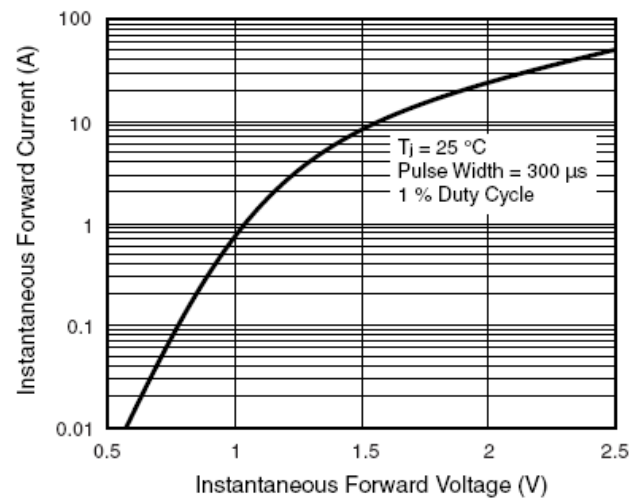


Figure 4. Typical Instantaneous Forward Characteristics

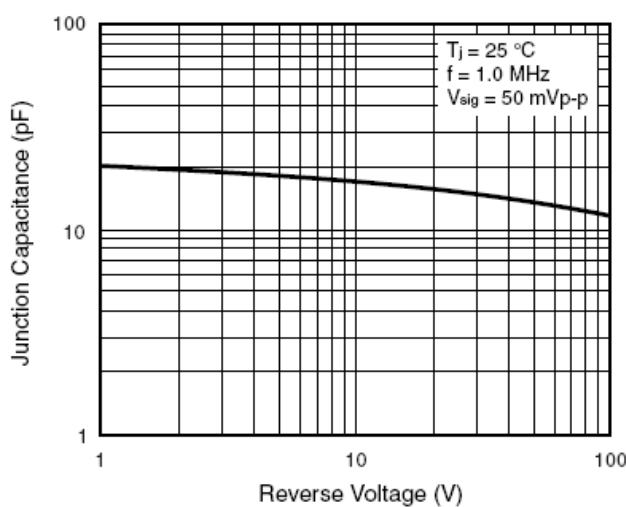


Figure 5. Typical Junction Capacitance