

UGRP10D

Ultra fast Plastic Power Rectifiers

VOLTAGE: 200V

CURRENT:10.0A



FEATURE

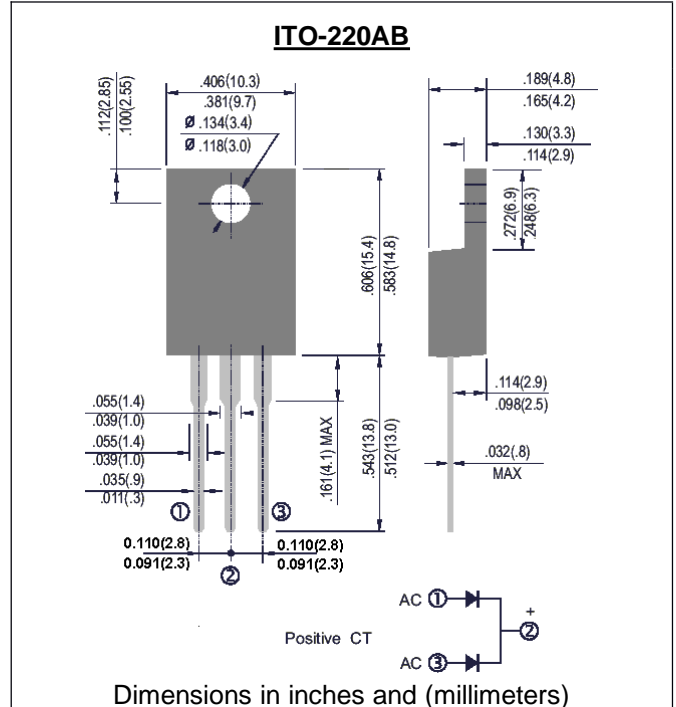
- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultra fast recovery time for high efficiency
- Excellent high temperature switching
- Glass passivated junction
- High voltage and high reliability
- High speed switching
- Low forward voltage

MECHANICAL DATA

Case: JEDEC ITO-220AB 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)

| | SYMBOL | UGRP10D | 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 =100°C | I _{f(av)} | 10.0 | 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 at 5A per leg | V _f | 1.1 | V |
| Maximum Reverse Recovery Time (Note 1) | T _{rr} | 20 | nS |
| Typical thermal resistance junction to case | R _{θ jc} | 5.0 | °C/W |
| Maximum DC Reverse Current T _a =25°C | I _r | 10 | μA |
| at rated DC blocking voltage T _a =125°C | | 100 | 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 UGRP10D

FIG. 1 - FORWARD CURRENT DERATING CURVE

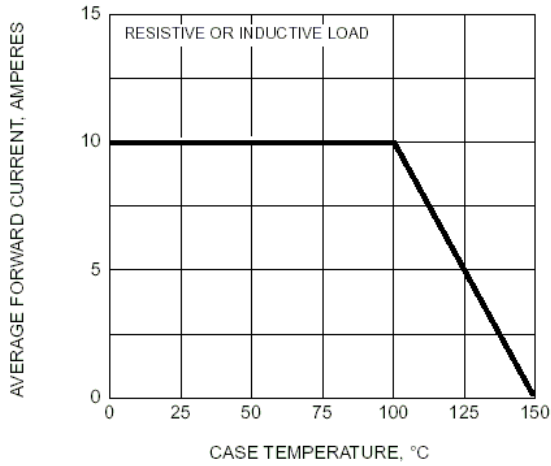


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

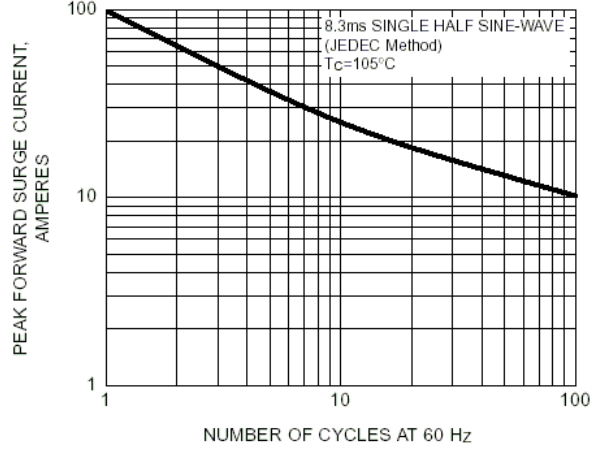


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

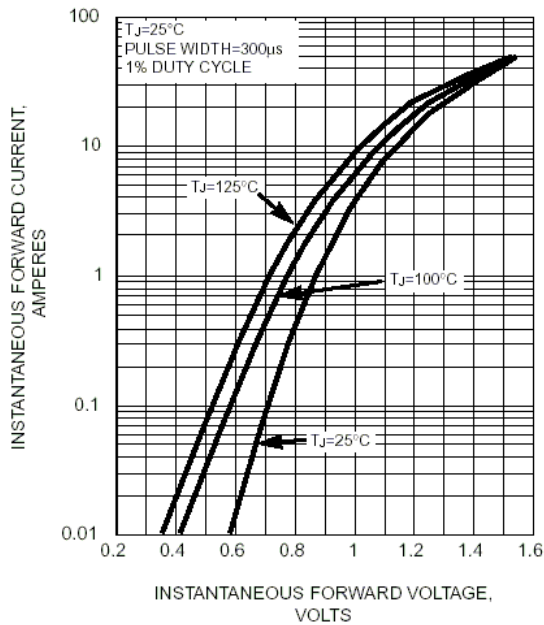


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

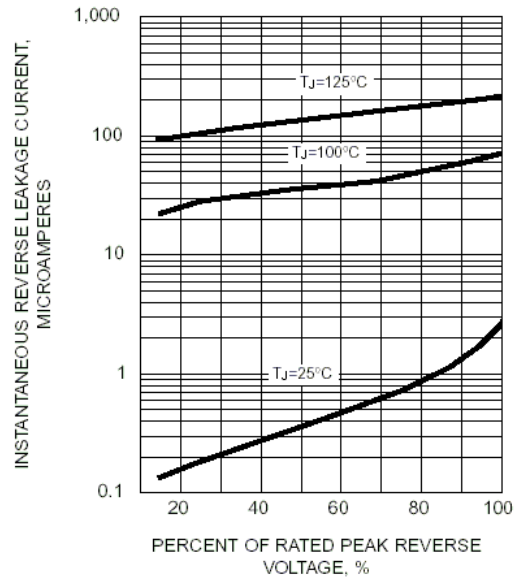


FIG. 5 - REVERSE SWITCHING CHARACTERISTICS PER LEG

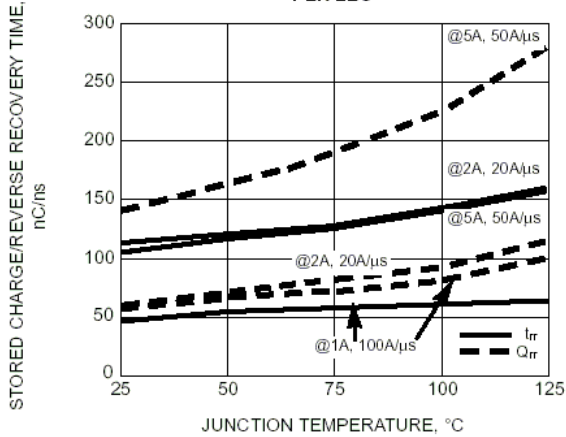


FIG. 6 - TYPICAL JUNCTION CAPACITANCE PER LEG

