

# FCU20G

## Ultra fast Plastic Power Rectifiers

VOLTAGE: 400V

CURRENT:20.0A



### FEATURE

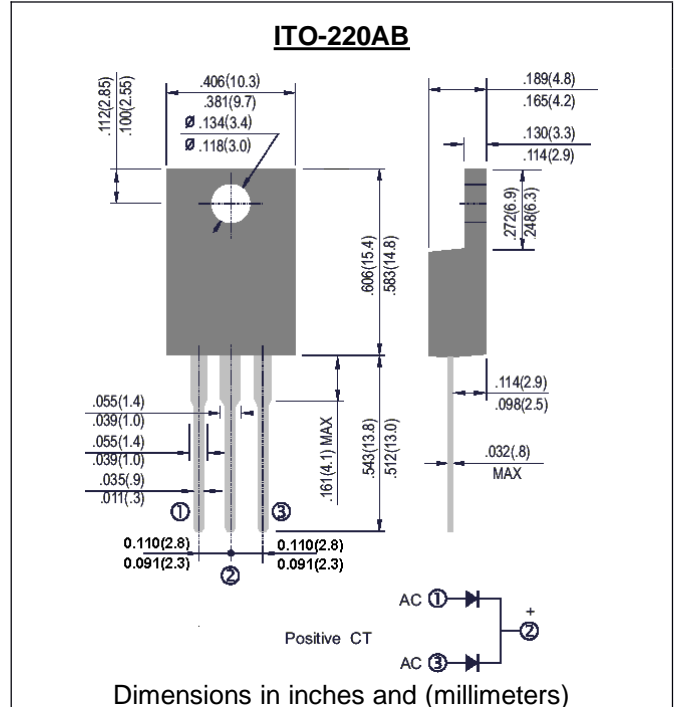
- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultra fast recovery time for high efficiency
- Excellent high temperature switching
- Glass passivated junction
- 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 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                            | FCU20G      | units |
|--|-----------------------------------|-------------|-------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>rrm</sub>                  | 400         | V     |
| Maximum RMS Voltage  | V <sub>rms</sub>                  | 280         | V     |
| Maximum DC blocking Voltage  | V <sub>dc</sub>                   | 400         | V     |
| Maximum Average Forward Rectified<br>at T <sub>c</sub> =100°C                        | I <sub>f(av)</sub>                | 20.0        | A     |
| Peak Forward Surge Current 8.3ms single<br>half sine-wave superimposed on rated load | I <sub>fsm</sub>                  | 120         | A     |
| Maximum Forward Voltage at Forward<br>Current at 10A per leg                         | V <sub>f</sub>                    | 1.5         | V     |
| Maximum Reverse Recovery Time (Note 1)   | T <sub>rr</sub>                   | 35          | nS    |
| Typical thermal resistance junction to case  | R <sub>θjc</sub>                  | 5.0         | °C/W  |
| Maximum DC Reverse Current T <sub>a</sub> =25°C                                      | I <sub>r</sub>                    | 10          | μA    |
| at rated DC blocking voltage T <sub>a</sub> =125°C                                   |                                   | 100         | μA    |
| Storage and Operating Temperature Range  | T <sub>stg</sub> , T <sub>j</sub> | -55 to +150 | °C    |

#### Note:

1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A

# RATINGS AND CHARACTERISTIC CURVES FCU20G

