

# UESA15J

## Ultra fast Plastic Power Rectifiers

VOLTAGE: 600V

CURRENT:15.0A



### 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

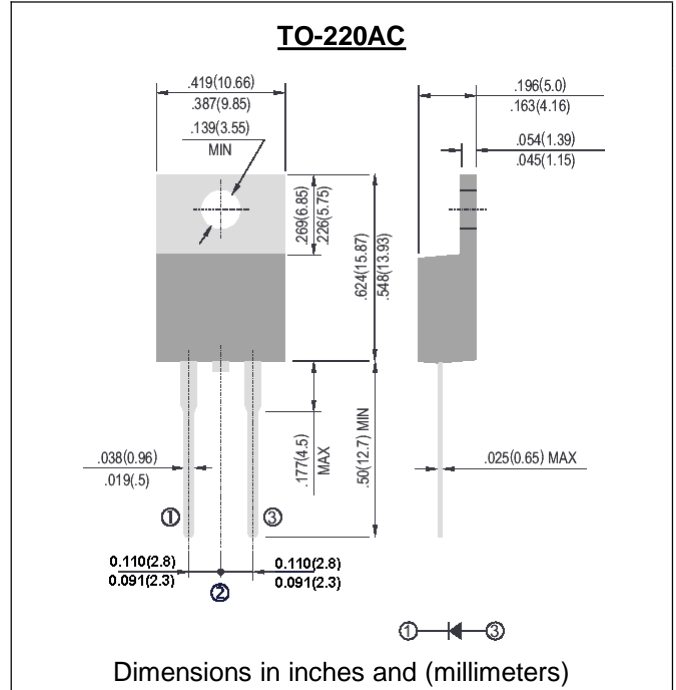
### MECHANICAL DATA

Case: JEDEC TO-220 molded plastic body over passivated chip

Terminals: Plated 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)

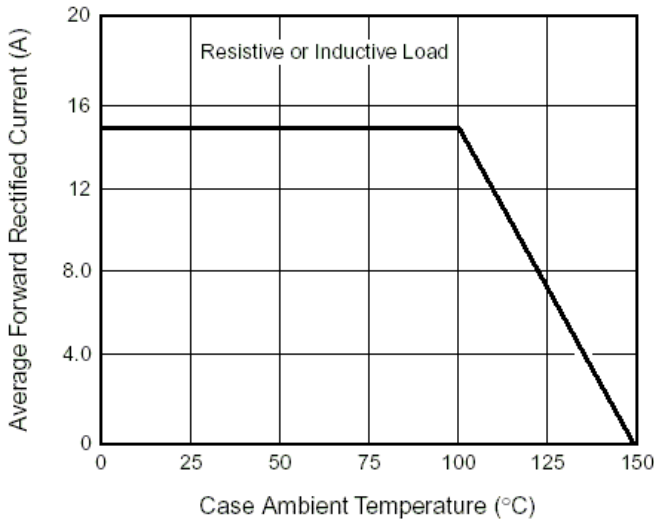
|  | SYMBOL                            | UESA15J     | units |
|--|-----------------------------------|-------------|-------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>rrm</sub>                  | 600         | V     |
| Maximum RMS Voltage  | V <sub>rms</sub>                  | 420         | V     |
| Maximum DC blocking Voltage  | V <sub>dc</sub>                   | 600         | V     |
| Maximum Average Forward Rectified<br>at T <sub>c</sub> =100°C                        | I <sub>f(av)</sub>                | 15.0        | A     |
| Peak Forward Surge Current 8.3ms single<br>half sine-wave superimposed on rated load | I <sub>fsm</sub>                  | 200         | A     |
| Maximum Forward Voltage at rated Forward<br>Current and 25°C                         | V <sub>f</sub>                    | 2.1         | V     |
| Maximum Reverse Recovery Time (Note 1)   | T <sub>rr</sub>                   | 30          | nS    |
| Typical thermal resistance junction to case  | R <sub>th(jc)</sub>               | 5.0         | °C/W  |
| Maximum DC Reverse Current Ta =25°C  | I <sub>r</sub>                    | 10.0        | μA    |
| at rated DC blocking voltage Ta =125°C   | I <sub>r</sub>                    | 1.0         | mA    |
| Storage and Operating Temperature Range  | T <sub>stg</sub> , T <sub>j</sub> | -65 to +175 | °C    |

#### Note:

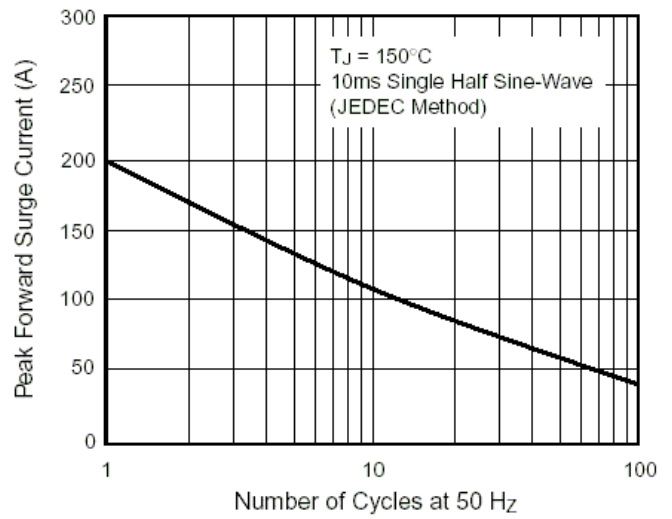
1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A

## RATINGS AND CHARACTERISTIC CURVES UESA15J

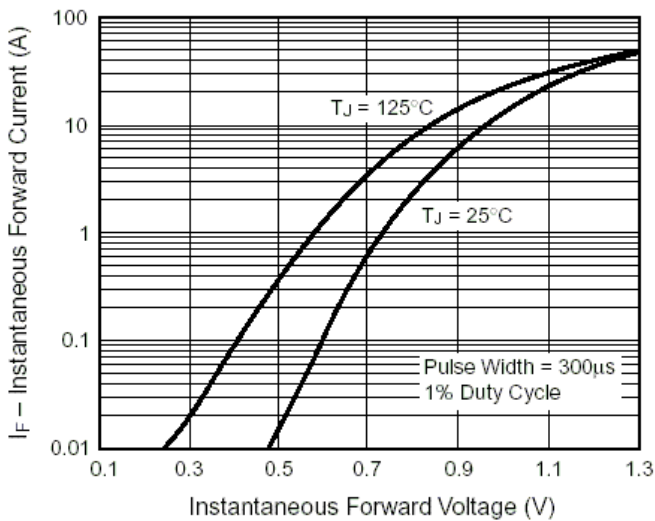
### Forward Current Derating Curve



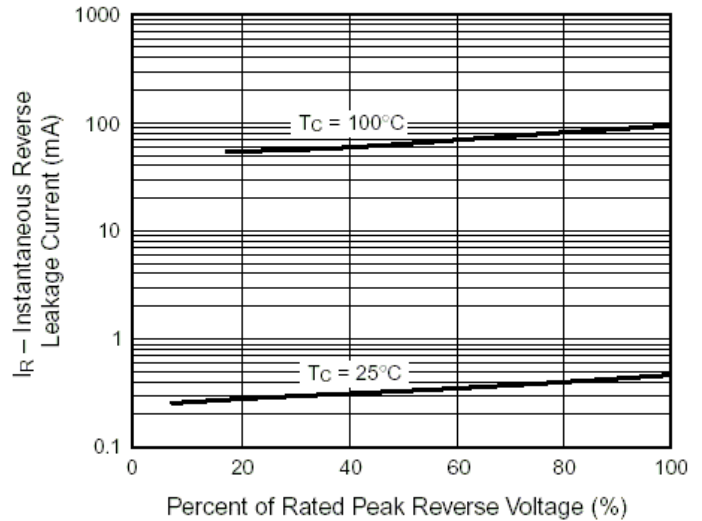
### Maximum Non-Repetitive Peak Forward Surge Current Per Leg



### Typical Instantaneous Forward Characteristics Per Leg



### Typical Reverse Leakage Characteristics Per Leg



### Typical Junction Capacitance Per Leg

