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**TD3165**

# Solar Array Blocking Diode

**200 Volts**
**10 Amps**

## Features

- Very Thin Construction
- Passivated mesa structure for very low leakage reverse currents
- Epitaxial structure minimizes forward voltage drop
- Hermetically sealed, extremely low profile ceramic seal package
- Diode assembly has matched thermal coefficient of expansion
- Weldable / Solderable interconnects

## Applications

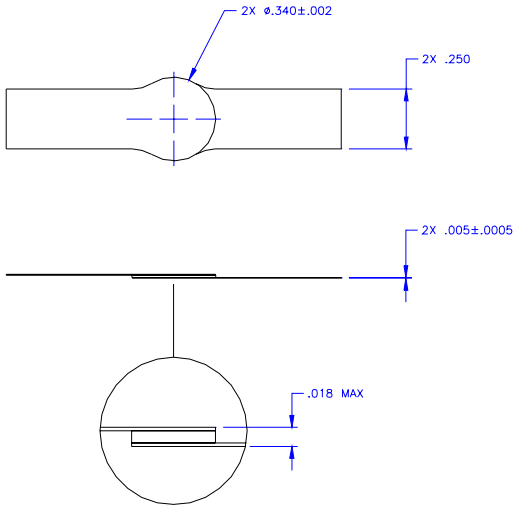
- Designed for Solar Cell protection from plasma ESD
- Extreme Temperature Cycling environments
- Generically similar to product used on the International Space Station Alpha

## Electrical Characteristics @ 25°C

**Junction Temperature Range -100 to +175 °C**

| SYMBOL | CHARACTERISTIC | CONDITIONS | MAX | UNITS |
|---|---|---|---|---|
| IR | Reverse (Leakage) Current | VR = 180 Vdc | 0.5 | uAmps |
| VF1 | Forward Voltage | IF = 0.1 A pulse test pw=300ms, d/c<2% | 710 | mVolts |
| VF2 | Forward Voltage | IF = 0.5 A pulse test pw=300ms, d/c<2% | 775 | mVolts |
| VF3 | Forward Voltage | IF = 2.0 A pulse test pw=300ms, d/c<2% | 850 | mVolts |
| VF4 | Forward Voltage | IF = 5.0 A pulse test pw=300ms, d/c<2% | 875 | mVolts |
| VF5 | Forward Voltage | IF = 10 A pulse test pw=300ms, d/c<2% | 950 | mVolts |
| BVR | Breakdown Voltage | IR = 100 uA | (min) 200 | Volts |

## Mechanical Outline




## Screening

- Temperature Cycling
- High Temperature Reverse Bias
- Power Burn-In
- Electrical Cycling
- Hermeticity

## Qualification

- Humidity Testing
- Thermal Cycling (20,000 cycles)
- Bond Strength
- Electrical Cycling
- ESD