

**TD3166**

# Solar Array Blocking Diode

## 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
- Flexible copper leads for surface mount soldering or welding
- Available in reverse voltage range from 50 V to 300 V

**200 Volts  
 10 Amps  
 2  $\mu$ s**

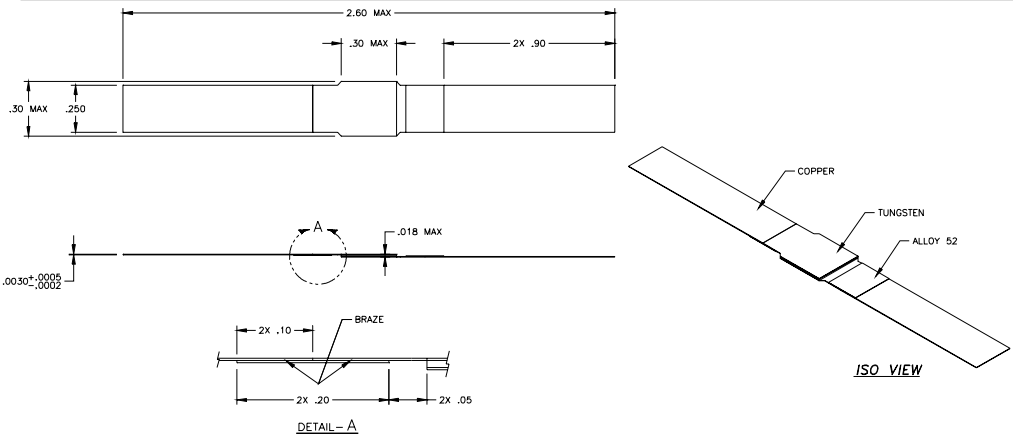
## Applications

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

**Electrical Characteristics @ 25°C** Junction Temperature Range -65 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%	700	mVolts
VF2	Forward Voltage	IF = 0.5 A pulse test pw=300ms, d/c<2%	750	mVolts
VF3	Forward Voltage	IF = 2.0 A pulse test pw=300ms, d/c<2%	825	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%	930	mVolts
BVR	Breakdown Voltage	IR = 100 uA	(min) 225	Volts

**Mechanical Outline**



## Suggested QCI Testing

- Bond Pull
- Temperature Cycling
- High Temperature Reverse Bias
- Humidity