

TD3165

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
- Diode assembly has matched thermal coefficient of expansion
- Weldable / Solderable interconnects

**200 Volts
10 Amps**

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

