

# Silicon Avalanche Diodes

## Axial Leaded Telecommunications Transient Voltage Suppressors

### FOLDBAK™ SERIES

Designed to protect sensitive telecommunications electronics from transients which originate from induced lightning, power cross and inductive load switching etc., especially where breakover devices would cause nuisance latch-up.

Typical equipment would be: line cards, PABX, modems, multiplexers and NTDs.

#### FEATURES

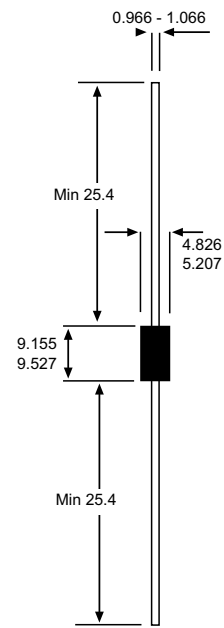
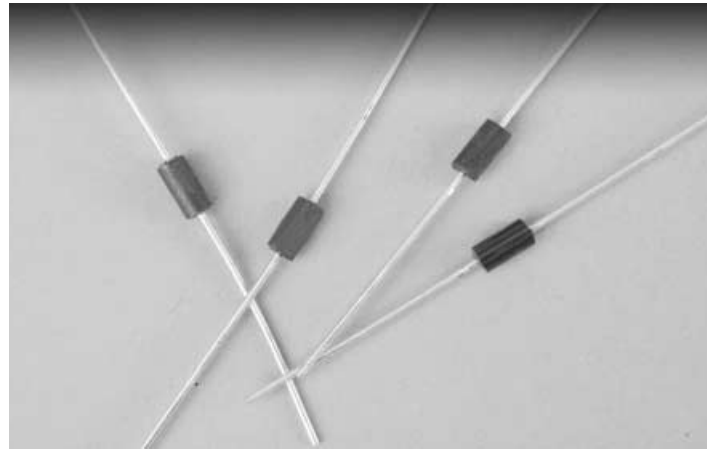
- Foldback characteristics
- 2200 watts Peak Power rated with 10/1000µS pulse
- 30,000 watts Peak Pulse Power based on 8/20µS
- UL 94V-0 flammability classification

#### DESCRIPTION

The foldback characteristic of this device eliminates the clamping of the DC current, or the battery, used in telecom systems, so latch-up is eliminated. Latch-up can occur with breakover devices due to the conduction follow-on current supplied by the DC system, after the device has responded to a transient.

With breakover devices, latch-up will happen more readily as the ambient temperature rises because the holding current values will fall with rising temperature.

The Foldbak eliminates this problem while still providing high levels of protection.



All dimensions in mm

#### ABSOLUTE MAXIMUM RATINGS @25°C case temp (unless otherwise noted)

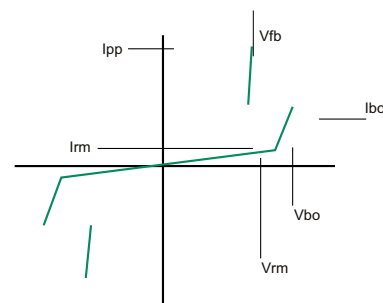
SYMBOL	PARAMETER	VALUE	Units
PPP	Peak Pulse Current 10x1000µsec 8-20µsec	2,200 20,000	W W
PM (AV)	Steady state power dissipation, lead length 9.5mm, TL - 85°C (note 1)	5.0	W
T <sub>j</sub>	Junction temperature	-55 to 150	°C
T <sub>stg</sub>	Storage temperature	-55 to 150	°C

Note 1. Mounted on copper pad area 40mm square

#### Characteristics @25°C case temp (unless otherwise noted)

DEVICE TYPE	Working voltage (V <sub>r</sub> )	Maximum breakover Voltage (V <sub>bo</sub> )	Maximum leakage current (I <sub>r</sub> ) @ V <sub>r</sub>	Minimum foldback voltage V <sub>fb</sub>	Maximum Peak Pulse Current (I <sub>pp</sub> ) @ V <sub>cl</sub> Note 2
	volts	volts	µA	volts	amps
FB120	120	170	1.0	55	170
FB160	160	220	1.0	110	220

Note 2. Using 10/1000µS pulse



V-I Characteristic