

**RoHS
Compliant**



Features

- Withstands large surge stresses
- Available on tape and reel
- High surge current rating
- Halogen-free

Mechanical Data

- Case: SMB molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Polarity: Colour band denotes cathode end

Maximum Ratings (@ TA = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Power Dissipation at TL=75°C	Ptot	3	W
Forward Voltage @IF = 200mA	VF	1.5	V
Typical Thermal Resistance	RθJL	25	°C/W
	RθJA	226	
Junction Temperature	TJ	-50 to +150	°C
Storage Temperature Range	TSTG		

Electrical Characteristics (@ TA = 25°C unless otherwise specified)

Device Marking Code	Zener Voltage	Test Current	Dynamic Impedance	Knee Current	Knee Impedance	Reverse Current	Reverse Voltage	Max. DC Current
	Vz	IzT	ZzT	IzK	ZzK	IR(Max.)	VR	IzM
	V	mA	Ω	mA	Ω	μA DC	V	mA
931B	18	20.8	12	0.25	650	1	13.7	83

Notes:

No suffix indicates a ±20% tolerance on nominal Vz. Suffix A denotes a ±10% tolerance, B denotes a ±5% tolerance, C denotes a ±2% tolerance, and D denotes a ±1% tolerance.

Zener voltage (Vz) is measured at TL=30°C. Voltage measurement to be performed 90 seconds after application of DC current.

The zener impedance is derived from the 60Hz AC voltage, which results when an AC current having an rms value equal to 10% of the DC zener current(IzT or IzK) is superimposed on IzT or IzK.

Ratings and Characteristic Curves (@ TA=25°C unless otherwise noted)

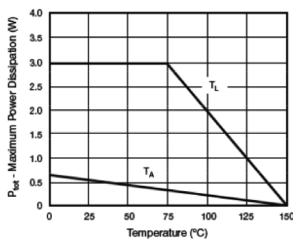


Fig. 1 - Steady State Power Durlating

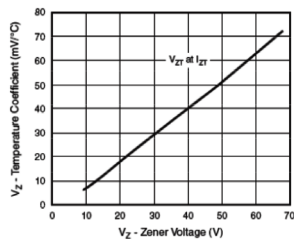


Fig. 3 - Typical Temperature Coefficients

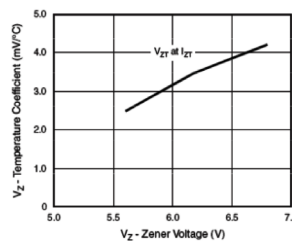


Fig. 2 - Typical Temperature Coefficients

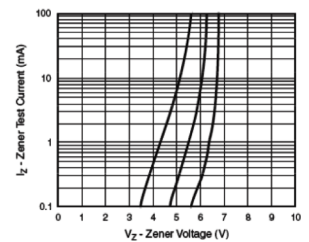
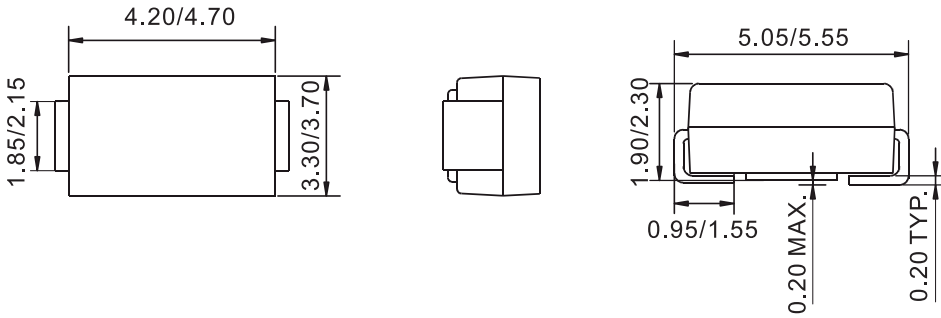


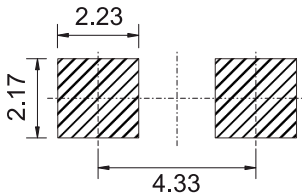
Fig. 4 - Typical Zener Voltage

Diagram

Package: SMB (DO-214AA)



Mounting Pad Layout



Part Number Table

Description	Part Number
Zener Diode, 18V, 3W, SMB	SMBJ5931B

Dimensions : Millimetres

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