

# Zener diode

## VDZ B Series

●Application

Voltage regulation

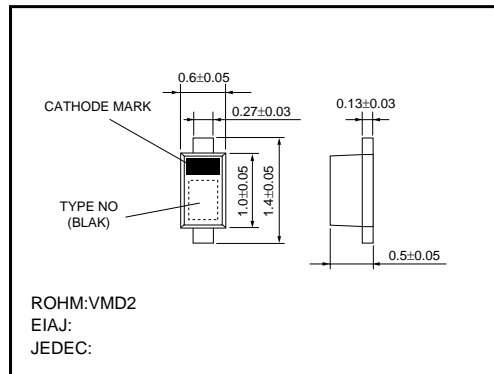
●Features

- 1) Ultra small mold type (VMD2).
- 2) By chip-mounter, automatic mounting is possible.

●Structure

Silicon Epitaxial Planer

●External dimensions (Unit : mm)



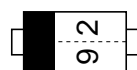
●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power dissipation	P	100	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C
Operation temperature	Topr	-55 to +150	°C

●Marking (Type No.)

Product name	Type No.	Product name	Type No.	Product name	Type No.
VDZ 3.6B	6 2	VDZ 8.2B	J 2	VDZ 20B	7 5
VDZ 3.9B	7 2	VDZ 9.1B	L 2	VDZ 22B	8 5
VDZ 4.3B	8 2	VDZ 10B	0 5	VDZ 24B	9 5
VDZ 4.7B	9 2	VDZ 11B	1 5	VDZ 27B	A 5
VDZ 5.1B	A 2	VDZ 12B	2 5	VDZ 30B	C 5
VDZ 5.6B	C 2	VDZ 13B	3 5	VDZ 33B	E 5
VDZ 6.2B	E 2	VDZ 15B	4 5	VDZ 36B	F 5
VDZ 6.8B	F 2	VDZ 16B	5 5	-	-
VDZ 7.5B	H 2	VDZ 18B	6 5	-	-

(EX) VDZ 4.7B



First Marking

Second Marking

9

2

## Diodes

## ●Electrical characteristics (Ta=25°C)

Type	Zener Voltage			Dynamic impedance		Zener impedance		Reverse current	
	Vz(V)			Zz(Ω)		Zzk(Ω)		IR(μA)	
	Min.	Max.	Iz (mA)	Max.	Iz (mA)	Max.	Iz (mA)	Max.	VR (V)
VDZ 3.6B	3.600	3.845	5.0	100	5.0	1000	1.0	10.0	1.0
VDZ 3.9B	3.890	4.160	5.0	100	5.0	1000	1.0	5.0	1.0
VDZ 4.3B	4.170	4.430	5.0	100	5.0	1000	1.0	5.0	1.0
VDZ 4.7B	4.550	4.750	5.0	100	5.0	800	0.5	2.0	1.0
VDZ 5.1B	4.980	5.200	5.0	80	5.0	500	0.5	2.0	1.5
VDZ 5.6B	5.490	5.730	5.0	60	5.0	200	0.5	1.0	2.5
VDZ 6.2B	6.060	6.330	5.0	60	5.0	100	0.5	1.0	3.0
VDZ 6.8B	6.650	6.930	5.0	40	5.0	60	0.5	0.5	3.5
VDZ 7.5B	7.280	7.600	5.0	30	5.0	60	0.5	0.5	4.0
VDZ 8.2B	8.020	8.360	5.0	30	5.0	60	0.5	0.5	5.0
VDZ 9.1B	8.850	9.230	5.0	30	5.0	60	0.5	0.5	6.0
VDZ 10B	9.770	10.210	5.0	30	5.0	60	0.5	0.1	7.0
VDZ 11B	10.760	11.220	5.0	30	5.0	60	0.5	0.1	8.0
VDZ 12B	11.740	12.240	5.0	30	5.0	80	0.5	0.1	9.0
VDZ 13B	12.910	13.490	5.0	37	5.0	80	0.5	0.1	10.0
VDZ 15B	14.340	14.980	5.0	42	5.0	80	0.5	0.1	11.0
VDZ 16B	15.850	16.510	5.0	50	5.0	80	0.5	0.1	12.0
VDZ 18B	17.560	18.350	5.0	65	5.0	80	0.5	0.1	13.0
VDZ 20B	19.520	20.390	5.0	85	5.0	100	0.5	0.1	15.0
VDZ 22B	21.540	22.470	5.0	100	5.0	100	0.5	0.1	17.0
VDZ 24B	23.720	24.780	5.0	120	5.0	120	0.5	0.1	19.0
VDZ 27B	26.190	27.530	2.0	150	2.0	150	0.5	0.1	21.0
VDZ 30B	29.190	30.690	2.0	200	2.0	200	0.5	0.1	23.0
VDZ 33B	32.150	33.790	2.0	250	2.0	250	0.5	0.1	25.0
VDZ 36B	35.070	36.870	2.0	300	2.0	300	0.5	0.1	27.0

(1) Zener voltage (Vz) shall be measured at 40ms after loading current.

(2) Dynamic resistance (Zz) shall be measured by applying very small AC current and specify current (Iz) simultaneously.

Diodes

●Electrical characteristic curves (Ta=25°C)

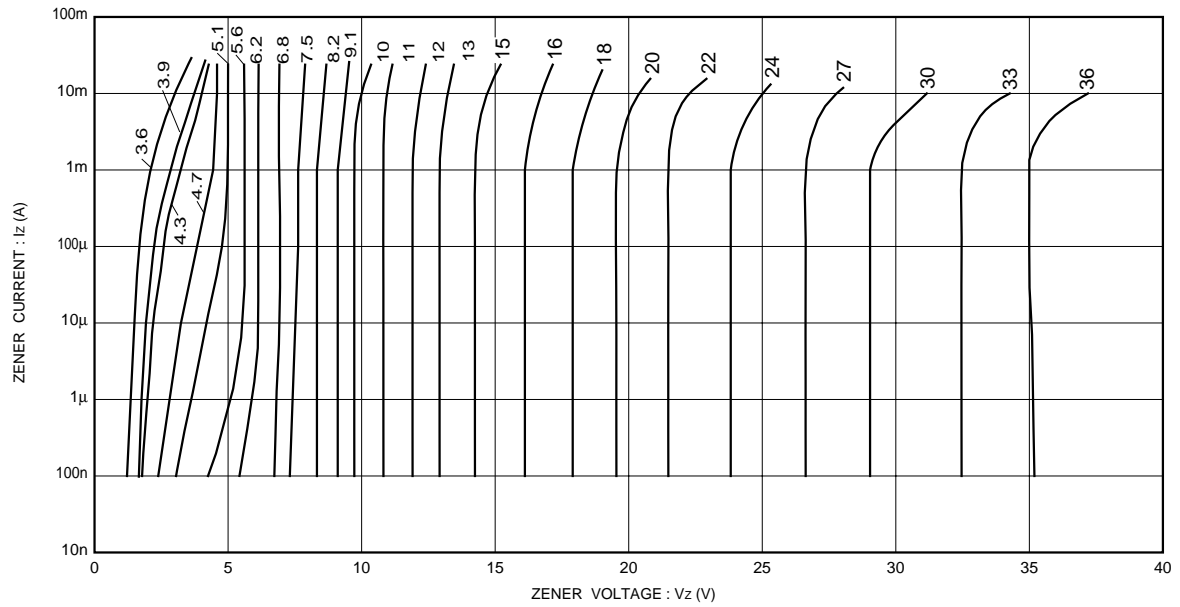


Fig.1 Zener Voltage Characteristics

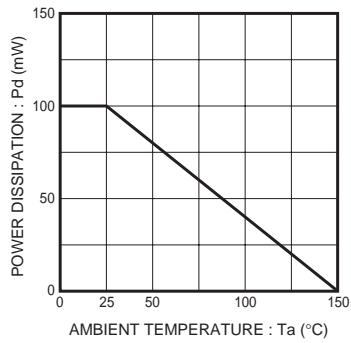


Fig.2 Derating Curve

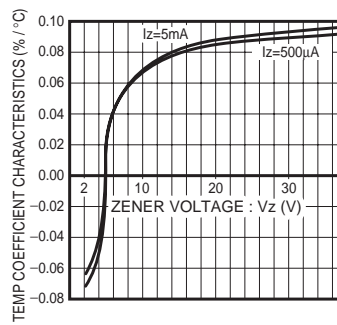


Fig.3 Zener voltage-temp. coefficient characteristics

Diodes

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● **Makeup of the part number**

- Please follow the part number designation when the order is placed.
- Fill in from the left, leaving any extra boxes empty on the right.
- Please refer packing specification about packing form.

● **Zener diodes**