

## 500mW 2% Zener Diodes

### FEATURES

- Wide zener voltage range selection: 2.4V to 75V
- VZ Tolerance Selection of  $\pm 2\%$
- Hermetically sealed glass
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

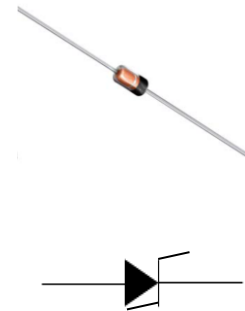
### APPLICATIONS

- Low voltage stabilizers or voltage references
- Adapters
- Lighting application
- On-board DC/DC converter

### MECHANICAL DATA

- Case: DO-35
- Packing code with suffix "G" means green compound (halogen-free)
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Polarity: Indicated by cathode band
- Weight:  $109 \pm 4$  mg (approximately)

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
$V_Z$	2.4-75	V
Test current $I_{ZT}$	2.5-5	mA
$P_{tot}$	500	mW
$V_F$ at $I_F=100mA$	1.5	V
$T_J$ MAX.	175	$^{\circ}C$
Package	DO-35	
Configuration	Single dice	



### ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^{\circ}C$ unless otherwise noted)

PARAMETER	SYMBOL	PART NUMBER	UNIT
Forward voltage @ $I_F=100mA$	$V_F$	1.5	V
Total power dissipation	$P_{tot}$	500	mW
Junction temperature range	$T_J$	-55 ~ 175	$^{\circ}C$
Storage temperature range	$T_{STG}$	-55 ~ 175	$^{\circ}C$

**ELECTRICAL SPECIFICATIONS** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

PART NUMBER	ZENER VOLTAGE			TEST CURRENT	REGULAR IMPEDANCE		TEST CURRENT	LEAKAGE CURRENT	
	$V_Z @ I_{ZT}$			$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$V_Z @ I_{ZT}$	
	V			mA	$\Omega$	$\Omega$	mA	V	mA
	Min.	Nom.	Max.		Max.	Max.		Max.	
BZX79B2V4	2.35	2.40	2.45	5	100	600	1.0	100	1.0
BZX79B2V7	2.65	2.70	2.75	5	100	600	1.0	75	1.0
BZX79B3V0	2.94	3.00	3.06	5	95	600	1.0	50	1.0
BZX79B3V3	3.23	3.30	3.37	5	95	600	1.0	25	1.0
BZX79B3V6	3.53	3.60	3.67	5	90	600	1.0	15	1.0
BZX79B3V9	3.82	3.90	3.98	5	90	600	1.0	10	1.0
BZX79B4V3	4.21	4.30	4.39	5	90	600	1.0	5	1.0
BZX79B4V7	4.61	4.70	4.79	5	80	500	1.0	3.0	2.0
BZX79B5V1	5.00	5.10	5.2	5	60	480	1.0	2.0	2.0
BZX79B5V6	5.49	5.60	5.71	5	40	400	1.0	1.0	2.0
BZX79B6V2	6.08	6.20	6.32	5	10	150	1.0	3.0	4.0
BZX79B6V8	6.66	6.80	6.94	5	15	80	1.0	2.0	4.0
BZX79B7V5	7.35	7.50	7.65	5	15	80	1.0	1.0	5.0
BZX79B8V2	8.04	8.20	8.36	5	15	80	1.0	0.7	5.0
BZX79B9V1	8.92	9.10	9.28	5	15	100	1.0	0.5	6.0
BZX79B10	9.80	10.00	10.2	5	20	150	1.0	0.2	7.0
BZX79B11	10.78	11.00	11.22	5	20	150	1.0	0.1	8.0
BZX79B12	11.76	12.00	12.24	5	25	150	1.0	0.1	8.0
BZX79B13	12.74	13.00	13.26	5	30	170	1.0	0.1	8.0
BZX79B15	14.70	15.00	15.30	5	30	200	1.0	0.05	10.5
BZX79B16	15.68	16.00	16.32	5	40	200	1.0	0.05	11.2
BZX79B18	17.64	18.00	18.36	5	45	225	1.0	0.05	12.6
BZX79B20	19.60	20.00	20.40	5	55	225	1.0	0.05	14.0
BZX79B22	21.56	22.00	22.44	5	55	250	1.0	0.05	15.4
BZX79B24	23.52	24.00	24.48	5	70	250	1.0	0.05	16.8
BZX79B27	26.46	27.00	27.54	2	80	300	0.5	0.05	18.9
BZX79B30	29.40	30.00	30.60	2	80	300	0.5	0.05	21.0
BZX79B33	32.34	33.00	33.66	2	80	325	0.5	0.05	23.1
BZX79B36	35.28	36.00	36.72	2	90	350	0.5	0.05	25.2
BZX79B39	38.22	39.00	39.78	2	130	350	0.5	0.05	27.3
BZX79B43	42.14	43.00	43.86	2	150	375	0.5	0.05	30.1
BZX79B47	46.06	47.00	47.94	2	170	375	0.5	0.05	32.9
BZX79B51	49.98	51.00	52.02	2	180	400	0.5	0.05	35.7
BZX79B56	54.88	56.00	57.12	2	200	425	0.5	0.05	39.2
BZX79B62	60.76	62.00	63.24	2.5	215	430	0.5	0.05	43.4
BZX79B68	66.64	68.00	69.36	2.5	240	447	0.5	0.05	47.6
BZX79B75	73.50	75.00	76.50	2.5	255	470	0.5	0.05	52.5

**Notes:**

1. Tolerance and voltage designation : the type numbers listed have Zener voltage as shown
2. Specials available include, nominal zener voltages between the voltages shown and tighter voltage, for detailed
3. Zener voltage (VZ) measurement, the zener voltage is measured under pulse condicions such that TJ is no more than 2oC above TA
4. Zener impedance (ZZ) derivaton, zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an RMS value equal to 10% of the dc zener current (IZT) is superimposed to IZT

**ORDERING INFORMATION**

<b>PART NO.</b>	<b>PACKING CODE</b>	<b>PACKING CODE SUFFIX</b>	<b>PACKAGE</b>	<b>PACKING</b>
BZX79BXXX (Note 1&2)	R0	G	DO-35	10K / 14" Reel
	A0			5K / Box (Ammo)

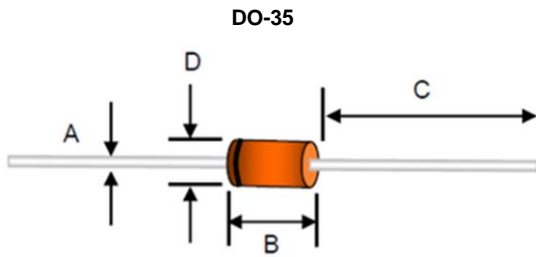
**Notes:**

1. "xxx" defines voltage from 2.4V (BZX79B2V4) to 75V (BZX79B75)
2. Whole series with green compound

**EXAMPLE**

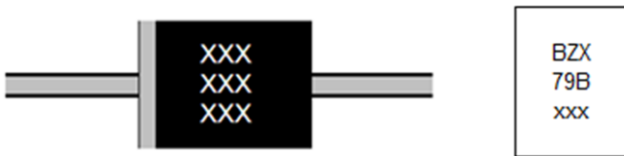
<b>EXAMPLE P/N</b>	<b>PART NO.</b>	<b>PACKING CODE</b>	<b>PACKING CODE SUFFIX</b>	<b>DESCRIPTION</b>
BZX79B75 R0G	BZX79B75	R0	G	Green compound

**PACKAGE OUTLINE DIMENSION**



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	0.34	0.60	0.013	0.024
B	2.90	5.08	0.114	0.200
C	25.40	38.10	1.000	1.500
D	1.30	2.28	0.051	0.090

**MARKING DIAGRAM**



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