500mW, 2% Zener Diode

FEATURES

- Wide zener voltage range selection: 2.4V to 75V
- V_Z Tolerance selection of ±2%
- Hermetically sealed glass
- RoHS Compliant
- 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
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Polarity: Indicated by cathode band
- Weight: 109 ± 4mg (approximately)

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
V_Z	2.4 - 75	V
Test current I_{ZT}	2.5 - 5.0	mA
P_{tot}	500	mW
V_F at I_F = 100mA	1.5	V
$T_{J\,MAX}$	175	°C
Package	DO-35	
Configuration	Single die	

Pb-Free RoHS COMPLIANT HALOGEN FREE

DO-35

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)			
PARAMETER	**SYMBOL**	**VALUE**	**UNIT**
Forward voltage @ I_F = 100mA	V_F	1.5	V
Total power dissipation	P_{tot}	500	mW
Junction temperature range	T_J	-55 to +175	°C
Storage temperature range	T_{STG}	-55 to +175	°C

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)

PART NUMBER	ZENER VOLTAGE[1]			TEST CURRENT	REGULAR IMPEDANCE[1]		TEST CURRENT	LEAKAGE CURRENT	
	V_Z @ I_Z			I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	V_Z @ I_{ZT}	
	V			mA	Ω	Ω	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. ZENER IMPEDANCE (Z_Z) derivation Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the AC current applied. The specified limits are for $I_{Z(AC)}$ = 0.1 $I_{Z(DC)}$ with the AC frequency = 60Hz.

ORDERING INFORMATION

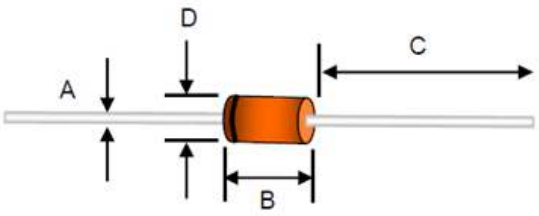
ORDERING CODE[1]	PACKAGE	PACKING
BZX79Bx R0G	DO-35	10K / 14” Reel
BZX79Bx A0G	DO-35	5K / Box(Ammo)

Notes:

1. “x” defines voltage from 2.4V(BZX79B2V4) to 75V(BZX79B75)

PACKAGE OUTLINE DIMENSION

DO-35



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

BZX
79B
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