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500 mW DO-35 Hermetically Sealed Glass Zener Voltage Regulators

AXIAL LEAD
DO35

Maximum Ratings (Note 1)

Rating	Symbol	Value	Units
Maximum Steady State Power Dissipation @TL≤75℃, Lead Length = 3/8"	P_D	500	mW
Derate Above 75℃		4.0	mW/℃
Operating and Storage Temperature Range	T_J, T_{stg}	-65 to +200	°C

Note 1: Some part number series have lower JEDEC registered ratings.

L = Logo
79Cxxx = BZX79CxxxDevice Code

Specification Features:

- Zener Voltage Range = 2.4V to 200V
- ESD Rating of Class 3 (>6 KV) per Human Body Model
- DO-35 Package (DO-204AH)
- Double Slug Type Construction
- Metallurgical Bonded Construction
- RoHS Compliant
- Solder Hot Dip Tin (Sn) Lead Finish

Specification Features:

Case : Double slug type, hermetically sealed glass
Finish : All external surfaces are corrosion resistant and leads are readily solderable
Polarity : Cathode indicated by polarity band
Mounting: Any

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

Device (Note 2.)	Device Marking	Zener Voltage (Note 3.)			Zener Impedance (Note 4.)	Leakage Current		θV_{BR}		C V_Z = 0, F = 1.0MHz
		V_Z (Volts)		@I_{ZT}	Z_{ZT} @I_{ZT}	I_R @ V_R		(mV/℃)		
		Min	Max	(mA)	(Ω)	(uA Max)	(Volts)	Min	Max	(pF)
BZX79C2V4	79C2V4	2.2	2.6	100	5	100	1	-3.5	0	255
BZX79C2V7	79C2V7	2.5	2.9	100	5	75	1	-3.5	0	230
BZX79C3V0	79C3V0	2.8	3.2	95	5	50	1	-3.5	0	215
BZX79C3V3	79C3V3	3.1	3.5	95	5	25	1	-3.5	0	200
BZX79C3V6	79C3V6	3.4	3.8	90	5	15	1	-3.5	0	185
BZX79C3V9	79C3V9	3.7	4.1	90	5	10	1	-3.5	0.3	175
BZX79C4V3	79C4V3	4.0	4.6	90	5	5	1	-3.5	1.0	160
BZX79C4V7	79C4V7	4.4	5.0	80	5	3	2	-3.5	0.2	130
BZX79C5V1	79C5V1	4.8	5.4	60	5	2	2	-2.7	1.2	110
BZX79C5V6	79C5V6	5.2	6.0	40	5	1	2	-2.0	2.5	95
BZX79C6V2	79C6V2	5.8	6.6	10	5	3	4	0.4	3.7	90
BZX79C6V8	79C6V8	6.4	7.2	15	5	2	4	1.2	4.5	85
BZX79C7V5	79C7V5	7.0	7.9	15	5	1	5	2.5	5.3	80
BZX79C8V2	79C8V2	7.7	8.7	15	5	0.7	5	3.2	6.2	75
BZX79C9V1	79C9V1	8.5	9.6	15	5	0.5	6	3.8	7.0	70
BZX79C10	79C10	9.4	10.6	20	5	0.2	7	4.5	8	70
BZX79C11	79C11	10.4	11.6	20	5	0.1	8	5.4	9	65
BZX79C12	79C12	11.4	12.7	25	5	0.1	8	6	10	65
BZX79C13	79C13	12.4	14.1	30	5	0.1	8	7	11	60
BZX79C15	79C15	13.8	15.6	30	5	0.05	10.5	9.2	13	55
BZX79C16	79C16	15.3	17.1	40	5	0.05	11.2	10.4	14	52
BZX79C18	79C18	16.8	19.1	45	5	0.05	12.6	12.9	16	47
BZX79C20	79C20	18.8	21.2	55	5	0.05	14	14.4	18	36
BZX79C22	79C22	20.8	23.3	55	5	0.05	15.4	16.4	20	34
BZX79C24	79C24	22.8	25.6	70	5	0.05	16.8	18.4	22	33
BZX79C27	79C27	25.1	28.9	80	2	0.05	18.9		23.5	30
BZX79C30	79C30	28	32	80	2	0.05	21		26	27
BZX79C33	79C33	31	35	80	2	0.05	23.1		29	25
BZX79C36	79C36	34	38	90	2	0.05	25.2		31	23
BZX79C39	79C39	37	41	130	2	0.05	27.3		34	21
BZX79C43	79C43	40	46	150	2	0.05	30.1		37	21
BZX79C47	79C47	44	50	170	2	0.05	32.9		40	19
BZX79C51	79C51	48	54	180	2	0.05	35.7		44	19
BZX79C56	79C56	52	60	200	2	0.05	39.2		47	18
BZX79C62	79C62	58	66	215	2	0.05	43.4		51	17
BZX79C68	79C68	64	72	240	2	0.05	47.6		56	17
BZX79C75	79C75	70	79	255	2	0.05	52.5		60	16.5
BZX79C82	79C82	77	87	280	2	0.1	62	46	95	29
BZX79C91	79C91	85	96	300	2	0.1	69	51	107	28
BZX79C100	79C100	94	106	500	1	0.1	76	57	119	27

VF Forward Voltage = 1.5V max @ I_F = 100mA for all types

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

Device (Note 2.)	**Device Marking**	**Zener Voltage** (Note 3.)			**Zener Impedance** (Note 4.)	**Leakage Current**		**θV_{BR}**		**C V_Z = 0, F = 1.0MHz**
		V_Z (Volts)		**@I_{ZT}**	**Z_{ZT} @I_{ZT}**	**I_R @ V_R**		**(mV/℃)**		
		Min	**Max**	**(mA)**	**(Ω)**	**(uA Max)**	**(Volts)**	**Min**	**Max**	**(pF)**
BZX79C110	79C110	104	116	650	1	0.1	84	63	131	26
BZX79C120	79C120	114	127	800	1	0.1	91	69	144	24
BZX79C130	79C130	124	141	950	1	0.1	99	75	158	23
BZX79C150	79C150	138	156	1250	1	0.1	114	87	185	21
BZX79C160	79C160	153	171	1400	1	0.1	122	93	200	20
BZX79C180	79C180	168	191	1700	1	0.1	137	105	228	18
BZX79C200	79C200	188	212	2000	1	0.1	152	120	255	17

VF Forward Voltage = 1.5V max @ I_F = 100mA for all types

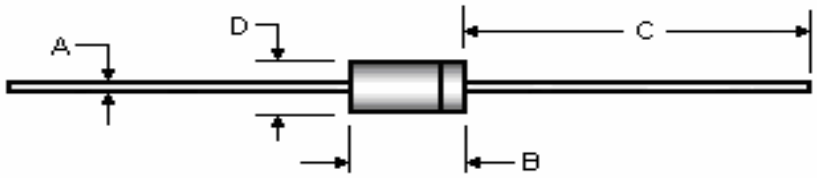
2. TOLERANCE AND VOLTAGE DESIGNATION
The type numbers listed have zener voltage min/max limits as shown.

3. REVERSE ZENER VOLTAGE (V_Z)
Reverse zener voltage is measured under pulse conditions such that T_J is no more than 2℃ above T_A.

4. ZENER IMPEDANCE (Z_Z) DERIVATION
Z_{ZT} is 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 AC frequency = 60Hz.

Package Outline

Case Outline



DIM	DO-35			
	Millimeters		Inches	
	Min	Max	Min	Max
A	0.46	0.56	0.018	0.022
B	3.05	5.08	0.120	0.200
C	25.40	38.10	1.000	1.500
D	1.52	2.29	0.060	0.090

Note: all dimensions are within JEDEC standard.