

## BZX79C Series

$V_Z$  : 2.4 to 75V

$P_D$  : 500mW

### FEATURES :

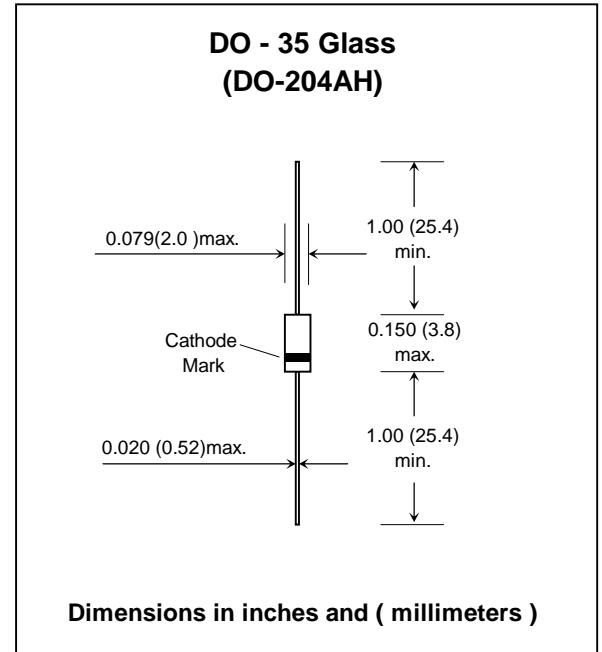
- Higher zener voltages available on request.
- Standard zener voltage tolerance is  $\pm 5\%$
- Other tolerances are available upon request.
- **Pb / RoHS Free**

### MECHANICAL DATA :

**Case:** DO-35 Glass Case

**Weight:** approx. 0.13g

## ZENER DIODES



### Maximum Ratings and Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Forward Voltage at $I_F = 10$ mA.	$V_F$	0.9	V
Power Dissipation at $T_L = 25^\circ\text{C}$	$P_D$	500 <sup>(1)</sup>	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300 <sup>(1)</sup>	$^\circ\text{C}/\text{W}$
Continuous Forward Current	$I_F$	250	mA
Peak reverse power dissipation (non-repetitive) $t_p = 100\mu\text{s}$ square wave	$P_{ZSM}$	40	W
Junction temperature	$T_J$	-65 to + 200	$^\circ\text{C}$
Storage temperature range	$T_S$	-65 to + 200	$^\circ\text{C}$

Note:

(1) Valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.

## ELECTRICAL CHARACTERISTICS (Rating at 25°C ambient temperature unless otherwise specified)

Type Number	Zener Voltage $V_Z @ I_{ZT}$		Maximum Zener Impedance , $f = 1\text{kHz}$			Maximum Reverse Leakage Current		Temp. coefficient of Zener Voltage $\alpha_{mvz}(\% / ^\circ\text{C})$	Admissible Zener Current $I_Z$ (mA)	Maximum Capacitance $V_R=0, f=1\text{MHz}$ (pF)
	Nom <sup>1)</sup> (V)	$I_{ZT}$ (mA)	$Z_{ZT} @ I_{ZT}$ (Ohms)	$Z_{Zk} @ I_{Zk}$ (Ohms)	$I_{Zk}$ (mA)	$I_R$ (mA)	at $V_R$ (V)			
BZX79C2V4	2.4	5	100	600	1	50	1	-0.08...-0.06	167	450
BZX79C2V7	2.7	5	100	600	1	20	1	-0.08...-0.06	135	450
BZX79C3V0	3.0	5	95	600	1	10	1	-0.08...-0.05	125	450
BZX79C3V3	3.3	5	95	600	1	5	1	-0.08...-0.05	115	450
BZX79C3V6	3.6	5	90	600	1	5	1	-0.08...-0.04	105	450
BZX79C3V9	3.9	5	90	600	1	3	1	-0.07...-0.03	95	450
BZX79C4V3	4.3	5	90	600	1	3	1	-0.04...-0.01	90	450
BZX79C4V7	4.7	5	80	500	1	3	1	-0.03...+0.01	85	300
BZX79C5V1	5.1	5	60	480	1	2	1	-0.02...+0.05	80	300
BZX79C5V6	5.6	5	40	400	1	1	1	-0.01...+0.06	70	300
BZX79C6V2	6.2	5	10	150	1	3	2	0.00...0.07	64	200
BZX79C6V8	6.8	5	15	80	1	2	3	0.01...0.08	58	200
BZX79C7V5	7.5	5	15	80	1	1	5	0.01...0.09	53	150
BZX79C8V2	8.2	5	15	80	1	0.7	6	0.01...0.09	47	150
BZX79C9V1	9.1	5	15	100	1	0.5	7	0.02...0.10	43	150
BZX79C10	10	5	20	150	1	0.2	7.5	0.03...0.11	40	90
BZX79C11	11	5	20	150	1	0.1	8.5	0.03...0.11	36	85
BZX79C12	12	5	25	150	1	0.1	9	0.03...0.11	32	85
BZX79C13	13	5	30	170	1	0.1	10	0.03...0.11	29	80
BZX79C15	15	5	30	200	1	0.05	11	0.03...0.11	27	75
BZX79C16	16	5	40	200	1	0.05	12	0.03...0.11	24	75
BZX79C18	18	5	45	225	1	0.05	14	0.03...0.11	21	70
BZX79C20	20	5	55	225	1	0.05	15	0.03...0.11	20	60
BZX79C22	22	5	55	250	1	0.05	17	0.03...0.11	18	60
BZX79C24	24	5	70	250	1	0.05	18	0.04...0.12	16	55
BZX79C27	27	2	80	300	0.5	0.05	20	0.04...0.12	14	50
BZX79C30	30	2	80	300	0.5	0.05	22	0.04...0.12	13	50
BZX79C33	33	2	80	325	0.5	0.05	24	0.04...0.12	12	45
BZX79C36	36	2	90	350	0.5	0.05	27	0.04...0.12	11	45
BZX79C39	39	2	130	350	0.5	0.05	28	0.04...0.12	10	45
BZX79C43	43	2	150	375	0.5	0.05	32	0.04...0.12	9.2	40
BZX79C47	47	2	170	375	0.5	0.05	35	0.04...0.12	8.5	40
BZX79C51	51	2	180	400	0.5	0.05	38	0.04...0.12	7.8	40
BZX79C56	56	2	200	425	0.5	0.05	39	0.1(typ.)	7.1	40
BZX79C62	62	2	215	450	0.5	0.05	43	0.1(typ.)	6.4	35
BZX79C68	68	2	240	475	0.5	0.05	48	0.1(typ.)	5.8	35
BZX79C75	75	2	255	500	0.5	0.05	53	0.1(typ.)	5.3	35

Notes (1) Tested with pulses  $t_p = 5\text{ms}$

(2) Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.

(3) The type number listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .

For  $\pm 2\%$  tolerance altered the sixth letter of type from "C" to be "B"