

ZENER DIODES

$V_Z : 2.4 -- 75 V$

POWER DISSIPATION: 500 mW

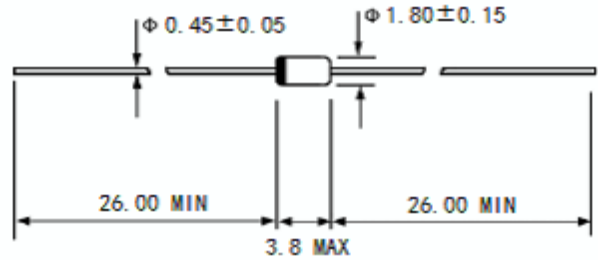
FEATURES

- ◇ The zener voltages are graded according to the international E 24 standard. Higher zener voltages available on request.
- ◇ Diodes available in these tolerance series:
±2% BZX79-B, ±3% BZX79-F, ±5% BZX79-C

MECHANICAL DATA

- ◇ Case: JEDEC DO-35, glass
- ◇ Terminals: Axial leads solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathodes end
- ◇ Weight: 0.004 ounces, 0.13 grams
- ◇ Mounting position: any

DO-35(GLASS)



Dimensions in millimeters

Maximum Ratings and Thermal Characteristics

($T_A=25^{\circ}C$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Power dissipation at $T_A=25^{\circ}C$ (Note 1)	P_{tot}	500	mW
Forward voltage @ $I_F=10mA$	V_F	0.9	V
Maximum thermal resistance junction to ambient	$R_{\theta JA}$	300	$^{\circ}C/W$
Peak reverse power dissipation(non-repetitive) $t_p=100\mu s$ square wave	P_{ZSM}	40	W
Junction temperature	T_J	-65 to +175	$^{\circ}C$
Storage temperature range	T_{STG}	-65 to +175	$^{\circ}C$

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8mm from case.

ELECTRICAL CHARACTERISTICS(Rating at 25°C ambient temperature unless otherwise specified) TABLE1(Ccon'd)

Type Number	Zener Voltage V _Z @ I _{ZT}		Maximum Zener Impedance , f = 1kHz			Maximum Leakage	Reverse Current	Temp. coefficient of Zener Voltage	Admissible Zener Current	Maximum Capacitance
	Nom ¹⁾ (V)	I _{ZT} (mA)	Z _{ZT} @ I _{ZT} (Ohms)	Z _{Zk} @ I _{Zk} (Ohms)	I _{Zk} (mA)	I _R (μA)	at V _R (V)	α _{mvz} (% / °C)	I _Z (mA)	V _R =0, f=1MHz (pF)
BZX79-C2V4	2.4	5	100	600	1	50	1	-0.08...-0.06	167	450
BZX79-C2V7	2.7	5	100	600	1	20	1	-0.08...-0.06	135	450
BZX79-C3V0	3.0	5	95	600	1	10	1	-0.08...-0.05	125	450
BZX79-C3V3	3.3	5	95	600	1	5	1	-0.08...-0.05	115	450
BZX79-C3V6	3.6	5	90	600	1	5	1	-0.08...-0.04	105	450
BZX79-C3V9	3.9	5	90	600	1	3	1	-0.07...-0.03	95	450
BZX79-C4V3	4.3	5	90	600	1	3	1	-0.04...-0.01	90	450
BZX79-C4V7	4.7	5	80	500	1	3	1	-0.03...+0.01	85	300
BZX79-C5V1	5.1	5	60	480	1	2	1	-0.02...+0.05	80	300
BZX79-C5V6	5.6	5	40	400	1	1	1	-0.01...+0.06	70	300
BZX79-C6V2	6.2	5	10	150	1	3	2	0.00...0.07	64	200
BZX79-C6V8	6.8	5	15	80	1	2	3	0.01...0.08	58	200
BZX79-C7V5	7.5	5	15	80	1	1	5	0.01...0.09	53	150
BZX79-C8V2	8.2	5	15	80	1	0.7	6	0.01...0.09	47	150
BZX79-C9V1	9.1	5	15	100	1	0.5	7	0.02...0.10	43	150
BZX79-C10	10	5	20	150	1	0.2	7.5	0.03...0.11	40	90
BZX79-C11	11	5	20	150	1	0.1	8.5	0.03...0.11	36	85
BZX79-C12	12	5	25	150	1	0.1	9	0.03...0.11	32	85
BZX79-C13	13	5	30	170	1	0.1	10	0.03...0.11	29	80
BZX79-C15	15	5	30	200	1	0.05	11	0.03...0.11	27	75
BZX79-C16	16	5	40	200	1	0.05	12	0.03...0.11	24	75
BZX79-C18	18	5	45	225	1	0.05	14	0.03...0.11	21	70
BZX79-C20	20	5	55	225	1	0.05	15	0.03...0.11	20	60
BZX79-C22	22	5	55	250	1	0.05	17	0.03...0.11	18	60
BZX79-C24	24	5	70	250	1	0.05	18	0.04...0.12	16	55
BZX79-C27	27	2	80	300	0.5	0.05	20	0.04...0.12	14	50
BZX79-C30	30	2	80	300	0.5	0.05	22	0.04...0.12	13	50
BZX79-C33	33	2	80	325	0.5	0.05	24	0.04...0.12	12	45
BZX79-C36	36	2	90	350	0.5	0.05	27	0.04...0.12	11	45
BZX79-C39	39	2	130	350	0.5	0.05	28	0.04...0.12	10	45
BZX79-C43	43	2	150	375	0.5	0.05	32	0.04...0.12	9.2	40
BZX79-C47	47	2	170	375	0.5	0.05	35	0.04...0.12	8.5	40
BZX79-C51	51	2	180	400	0.5	0.05	38	0.04...0.12	7.8	40
BZX79-C56	56	2	200	425	0.5	0.05	39	0.1(typ.)	7.1	40
BZX79-C62	62	2	215	450	0.5	0.05	43	0.1(typ.)	6.4	35
BZX79-C68	68	2	240	475	0.5	0.05	48	0.1(typ.)	5.8	35
BZX79-C75	75	2	255	500	0.5	0.05	53	0.1(typ.)	5.3	35

- Notes** (1) Tested with pulses tp = 5 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 ± 5%.

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FIG.1 -- BREAKDOWN CHARACTERISTICS

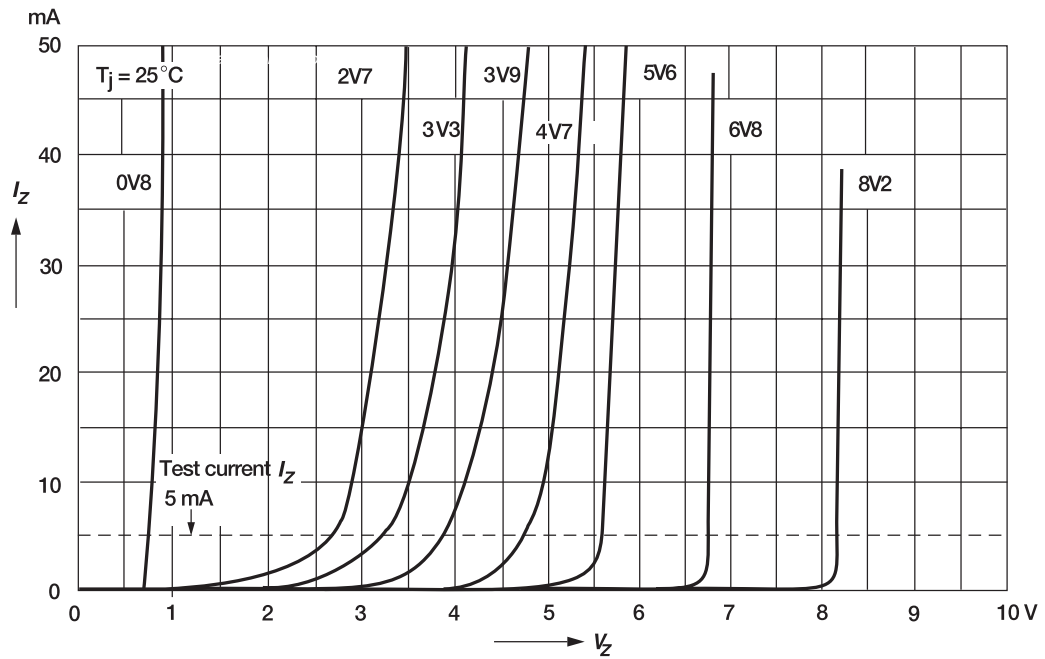


FIG.2 -- BREAKDOWN CHARACTERISTICS

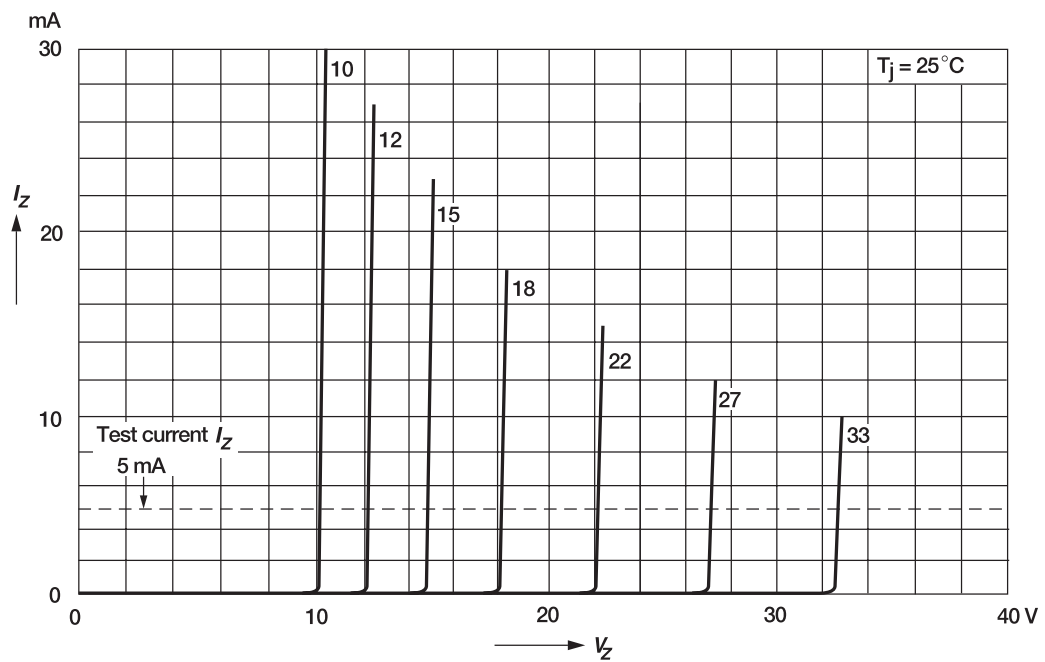


FIG.3-CAPACTIANCE VERSUS ZENER VOLTAGE

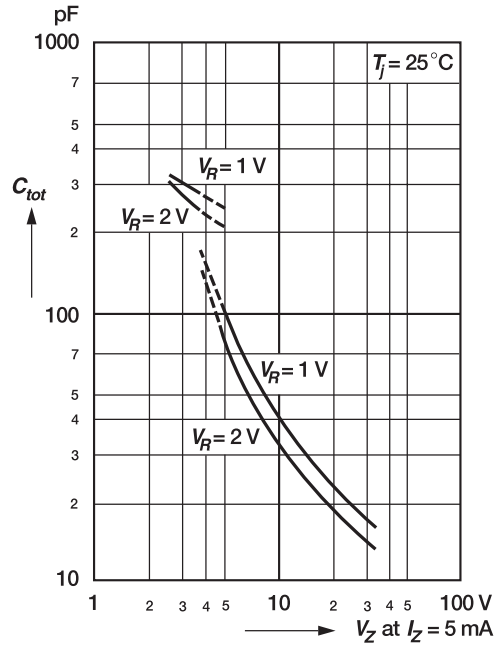


FIG.4-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

