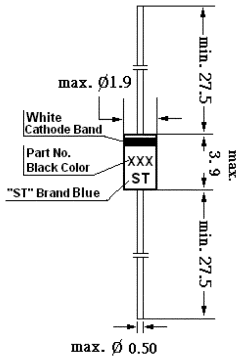
FUKUCOM COMPANY LTD.
福 靈 有 限 公 司
FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.
TEL: 852-2790 0314 FAX: 852-2790 0206

BZX79...

ZENER DIODES



Glass case JEDEC DO-35
Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500 [1)]	mW
Junction Temperature	T_j	- 65 to + 200	°C
Storage Temperature Range	T_S	- 65 to + 200	°C
Continuous forward current	I_F	250	mA
Thermal resistance junction to ambient air	$R_{\theta JA}$	0.3 [1)]	°C/mW
Peak reverse power dissipation (non-repetitive) t_p = 100 ms square wave	P_{ZSM}	40	W

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

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Characteristics at T_a = 25 °C (V_F = 1.5 V, I_F = 100 mA)

Type [2]	Zener Voltage [1]			Impedance (Ohm) @ I_{ZT} f = 1000 Hz	Leakage Current (μA)		Temp. Coefficient (Typical) (mV/°C)		Capacitance (Typical) (pF) V_R=0, f=1MHz
	Min.	Max.	I_Z (mA)	Max [3]	Max.	@ V_R (V)	Min	Max.	
BZX79C2V4	2.2	2.6	5	100	100	1	-3.5	0	255
BZX79C2V7	2.5	2.9	5	100	75	1	-3.5	0	230
BZX79C3V0	2.8	3.2	5	95	50	1	-3.5	0	215
BZX79C3V3	3.1	3.5	5	95	25	1	-3.5	0	200
BZX79C3V6	3.4	3.8	5	90	15	1	-3.5	0	185
BZX79C3V9	3.7	4.1	5	90	10	1	-3.5	+0.3	175
BZX79C4V3	4	4.6	5	90	5	1	-3.5	+1	160
BZX79C4V7	4.4	5	5	80	3	2	-3.5	+0.2	130
BZX79C5V1	4.8	5.4	5	60	2	2	-2.7	+1.2	110
BZX79C5V6	5.2	6	5	40	1	2	-2	+2.5	95
BZX79C6V2	5.8	6.6	5	10	3	4	0.4	3.7	90
BZX79C6V8	6.4	7.2	5	15	2	4	1.2	4.5	85
BZX79C7V5	7	7.9	5	15	1	5	2.5	5.3	80
BZX79C8V2	7.7	8.7	5	15	0.7	5	3.2	6.2	75
BZX79C9V1	8.5	9.6	5	15	0.5	6	3.8	7	70
BZX79C10	9.4	10.6	5	20	0.2	7	4.5	8	70
BZX79C11	10.4	11.6	5	20	0.1	8	5.4	9	65
BZX79C12	11.4	12.7	5	25	0.1	8	6	10	65
BZX79C13	12.4	14.1	5	30	0.1	8	7	11	60
BZX79C15	13.8	15.6	5	30	0.05	10.5	9.2	13	55
BZX79C16	15.3	17.1	5	40	0.05	11.2	10.4	14	52
BZX79C18	16.8	19.1	5	45	0.05	12.6	12.9	16	47
BZX79C20	18.8	21.2	5	55	0.05	14	14.4	18	36
BZX79C22	20.8	23.3	5	55	0.05	15.4	16.4	20	34
BZX79C24	22.8	25.6	5	70	0.05	16.8	18.4	22	33
BZX79C27	25.1	28.9	2	80	0.05	18.9		23.5	30
BZX79C30	28	32	2	80	0.05	21		26	27
BZX79C33	31	35	2	80	0.05	23.1		29	25
BZX79C36	34	38	2	90	0.05	25.2		31	23
BZX79C39	37	41	2	130	0.05	27.3		34	21
BZX79C43	40	46	2	150	0.05	30.1		37	21
BZX79C47	44	50	2	170	0.05	32.9		40	19
BZX79C51	48	54	2	180	0.05	35.7		44	19
BZX79C56	52	60	2	200	0.05	39.2		47	18
BZX79C62	58	66	2	215	0.05	43.4		51	17
BZX79C68	64	72	2	240	0.05	47.6		56	17
BZX79C75	70	79	2	255	0.05	52.5		60	16.5
BZX79C82	77	87	2	280	0.1	62	46	95	29
BZX79C91	85	96	2	300	0.1	69	51	107	28
BZX79C100	94	106	1	500	0.1	76	57	119	27
BZX79C110	104	116	1	650	0.1	84	63	131	26
BZX79C120	114	127	1	800	0.1	91	69	144	24
BZX79C130	124	141	1	950	0.1	99	75	158	23
BZX79C150	138	156	1	1250	0.1	114	87	185	21
BZX79C160	153	171	1	1400	0.1	122	93	200	20
BZX79C180	168	191	1	1700	0.1	137	105	228	18
BZX79C200	188	212	1	2000	0.1	152	120	255	17

[1] Zener voltage is measured under pulse conditions such that T_J is no more than 2 °C above T_A

[2] Tolerance designation - The type numbers listed have zener voltage min/max limits as shown. Device tolerances at ±2% are indicated by a “B” instead of a “C” .

[3] 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) = 0.1I_Z (dc) with the ac frequency = 1 KHz

[4] Tested with pulses tp = 20 ms.

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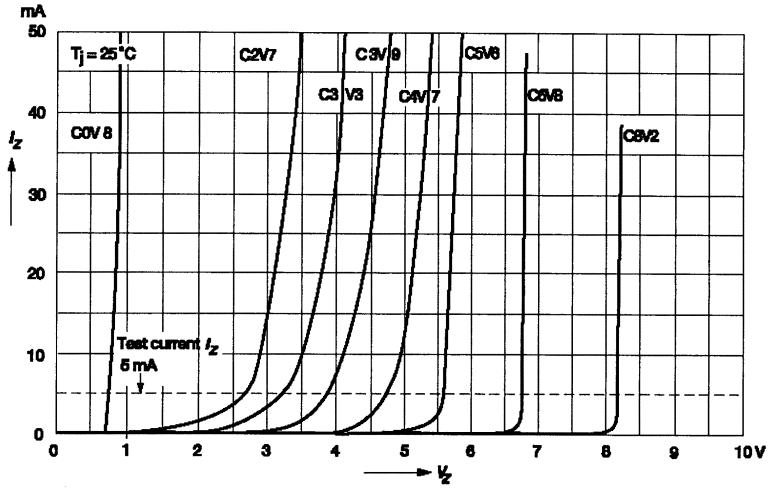
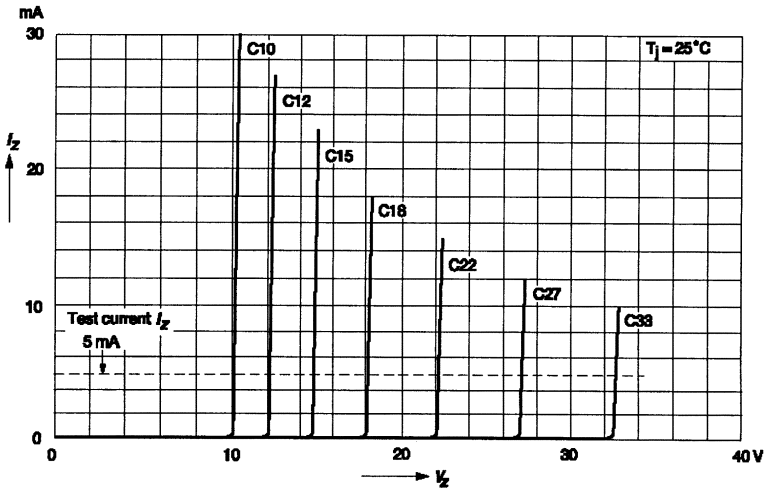
Breakdown characteristics
at T_j = constant (pulsed)



Breakdown characteristics
at T_j = constant (pulsed)



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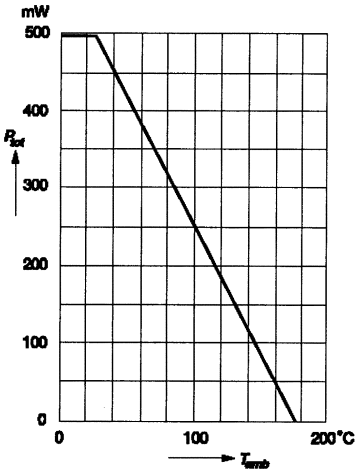
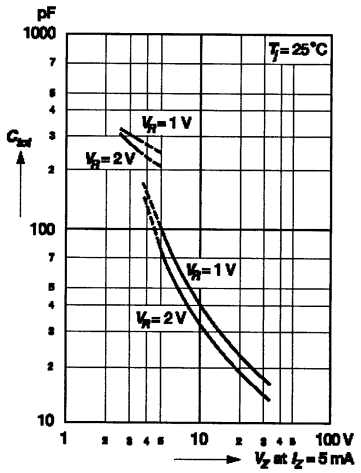
Admissible power dissipation versus ambient temperature

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

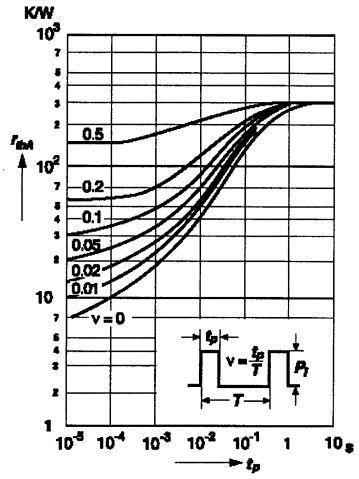


Capacitance versus Zener voltage

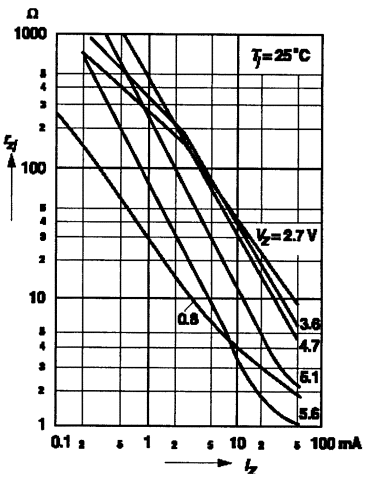


Pulse thermal resistance versus pulse duration

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



Dynamic resistance versus Zener current



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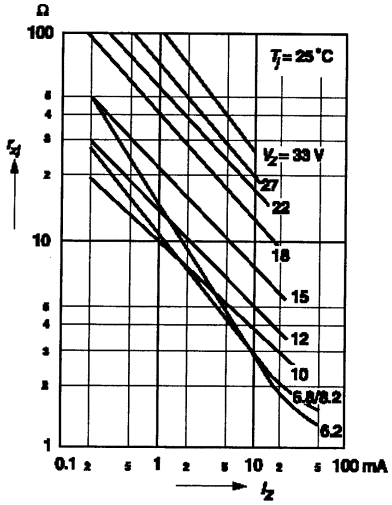
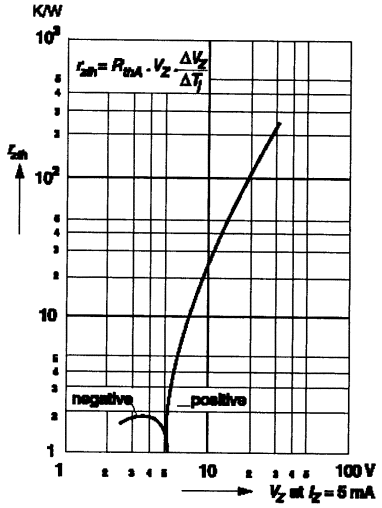
Dynamic resistance versus Zener current

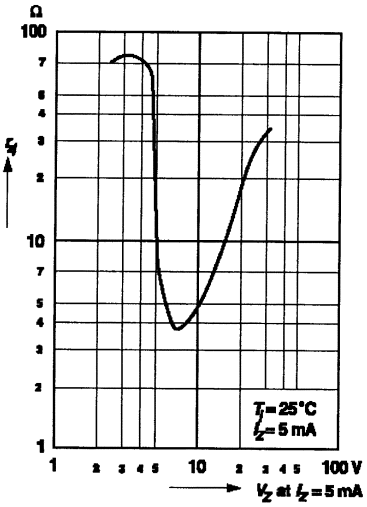


Thermal differential resistance versus Zener voltage

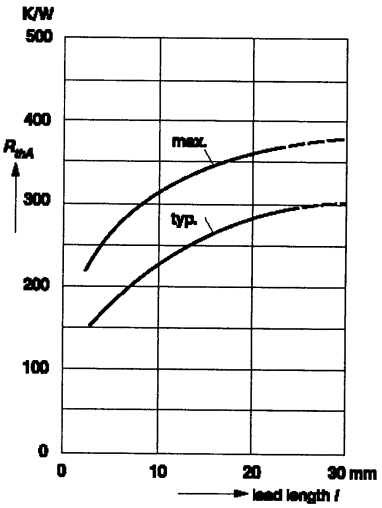
Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.



Dynamic resistance versus Zener voltage



Thermal resistance versus lead length



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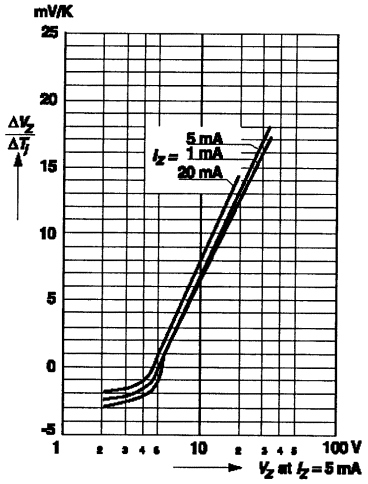
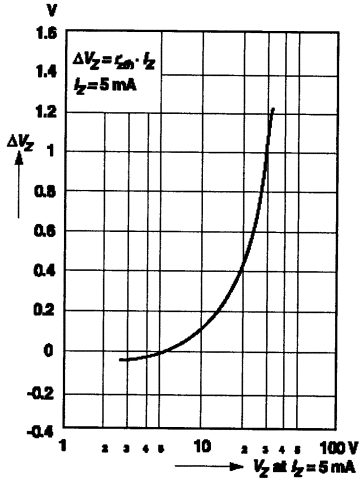
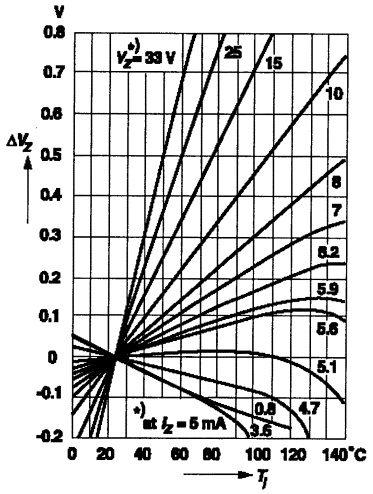
Temperature dependence of Zener voltage versus Zener voltage



Change of Zener voltage from turn-on up to the point of thermal equilibrium versus Zener voltage



Change of Zener voltage versus junction temperature



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