BZX85B Series

SILICON ZENER DIODES

V_Z : 2.4 - 220 Volts
P_D : 1.3 Watts

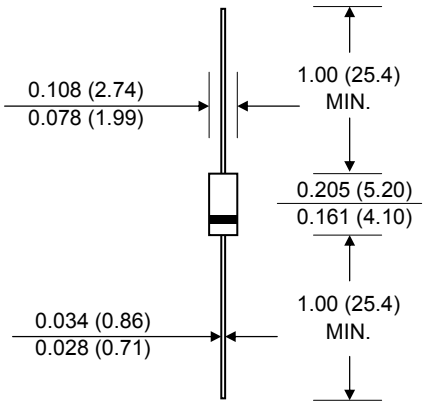
FEATURES :

* Complete Voltage Range 2.4 to 220 Volts
* High peak reverse power dissipation
* High reliability
* Low leakage current
* Pb / RoHS Free

MECHANICAL DATA

* Case : DO-41 Molded plastic
* Epoxy : UL94V-0 rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.34 gram

DO - 41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

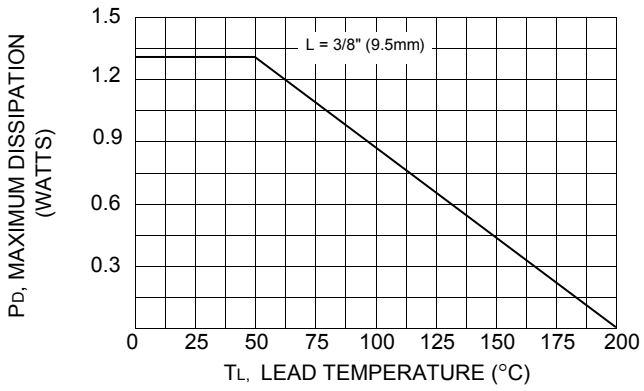
Rating	Symbol	Value	Unit
DC Power Dissipation at T_L = 50 °C (Note1)	P_D	1.3	W
Maximum Forward Voltage at I_F = 200 mA	V_F	1.2	V
Maximum Thermal Resistance Junction to Ambient Air (Note2)	$R_{\Theta JA}$	130	K / W
Junction Temperature Range	T_J	- 65 to + 200	°C
Storage Temperature Range	T_{STG}	- 65 to + 200	°C

Notes :

(1) T_L = Lead temperature at 3/8 " (9.5mm) from body

(2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.

Fig. 1 POWER TEMPERATURE DERATING



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

TYPE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R		I_{ZM}
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
BZX85B2V4	2.4	80	20	400	1.0	150	1.0	410
BZX85B2V7	2.7	80	20	400	1.0	150	1.0	370
BZX85B3V0	3.0	80	20	400	1.0	100	1.0	340
BZX85B3V3	3.3	80	20	400	1.0	40	1.0	320
BZX85B3V6	3.6	70	20	500	1.0	20	1.0	290
BZX85B3V9	3.9	60	15	500	1.0	10	1.0	280
BZX85B4V3	4.3	50	13	500	1.0	3.0	1.0	250
BZX85B4V7	4.7	45	13	500	1.0	3.0	1.0	215
BZX85B5V1	5.1	45	10	500	1.0	1.0	1.5	200
BZX85B5V6	5.6	45	7.0	400	1.0	1.0	2.0	190
BZX85B6V2	6.2	35	4.0	300	1.0	1.0	3.0	170
BZX85B6V8	6.8	35	3.5	300	1.0	50	4.0	155
BZX85B7V5	7.5	35	3.0	200	0.5	50	4.5	140
BZX85B8V2	8.2	25	5.0	200	0.5	50	6.2	130
BZX85B9V1	9.1	25	5.0	200	0.5	50	6.8	120
BZX85B10	10	25	7.0	200	0.5	50	7.5	105
BZX85B11	11	20	8.0	300	0.5	50	8.2	97
BZX85B12	12	20	9.0	350	0.5	0.5	9.1	88
BZX85B13	13	20	10	400	0.5	0.5	10	79
BZX85B15	15	15	15	500	0.5	0.5	11	71
BZX85B16	16	15	15	500	0.5	0.5	12	66
BZX85B18	18	15	20	500	0.5	0.5	13	62
BZX85B19	19	15	20	550	0.5	0.5	14	58
BZX85B20	20	10	24	600	0.5	0.5	15	56
BZX85B22	22	10	25	600	0.5	0.5	16	52
BZX85B24	24	10	25	600	0.5	0.5	18	47
BZX85B27	27	8.0	30	750	0.25	0.5	20	41
BZX85B30	30	8.0	30	1000	0.25	0.5	22	36
BZX85B33	33	8.0	35	1000	0.25	0.5	24	33
BZX85B36	36	8.0	40	1000	0.25	0.5	27	30
BZX85B39	39	6.0	50	1000	0.25	0.5	30	28
BZX85B43	43	6.0	50	1000	0.25	0.5	33	26
BZX85B47	47	4.0	90	1500	0.25	0.5	36	23
BZX85B51	51	4.0	115	1500	0.25	0.5	39	21
BZX85B56	56	4.0	120	2000	0.25	0.5	43	19
BZX85B62	62	4.0	125	2000	0.25	0.5	47	16
BZX85B68	68	4.0	130	2000	0.25	0.5	51	15
BZX85B75	75	4.0	135	2000	0.25	0.5	56	14
BZX85B82	82	2.7	200	3000	0.25	0.5	62	12
BZX85B91	91	2.7	250	3000	0.25	0.5	68	10
BZX85B100	100	2.7	350	3000	0.25	0.5	75	9.4
BZX85B110	110	2.7	450	4000	0.25	0.5	82	8.6
BZX85B120	120	2.0	550	4500	0.25	0.5	91	7.8
BZX85B130	130	2.0	700	5000	0.25	0.5	100	7.0
BZX85B150	150	2.0	1000	6000	0.25	0.5	110	6.4
BZX85B160	160	1.5	1100	6500	0.25	0.5	120	5.8
BZX85B180	180	1.5	1200	7000	0.25	0.5	130	5.2
BZX85B200	200	1.5	1900	9990	0.25	0.5	150	4.7
BZX85B220	220	1.5	1500	8000	0.25	0.5	167	4.5

Notes :

(1) The type number listed have a standard tolerance on the nominal zener voltage of ± 2.0%.

(2) " BZX " will be omitted in marking on the diode

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1N5954B 30KP400CA SMAZ5V6 SZ3562 20HCC 2EZ8.2D5 BZG05C3V3 HVR520 MM3Z36B MMBZ5247B SMBJ5377B 1N5339B 30KP170 SZ558C SZ6582 SZ5562 2EZ4.3D5 30KP400A SZ256I 1N4746A 1SMA4734A SK33S SZ15B0 SZ15B2 SZ2568 SZ457F FR606 15HCB MZ5954A SMBJ5385B