

BZX85C Series

V_Z : 2.4 - 200 Volts
 P_D : 1.3 Watts

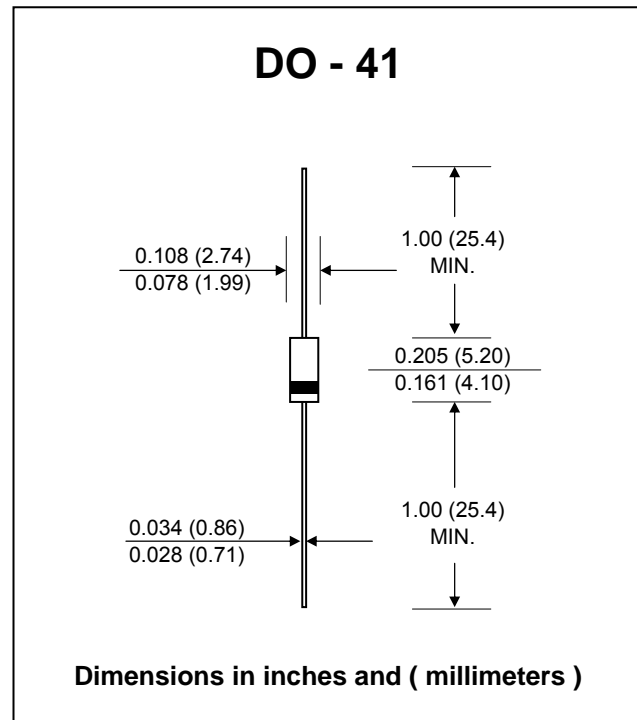
FEATURES :

- * Complete Voltage Range 2.4 to 200 Volts
- * High peak reverse power dissipation
- * High reliability
- * Low leakage current
- * **Pb / RoHS Free**

MECHANICAL DATA

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-O 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

SILICON ZENER DIODES



MAXIMUM RATINGS

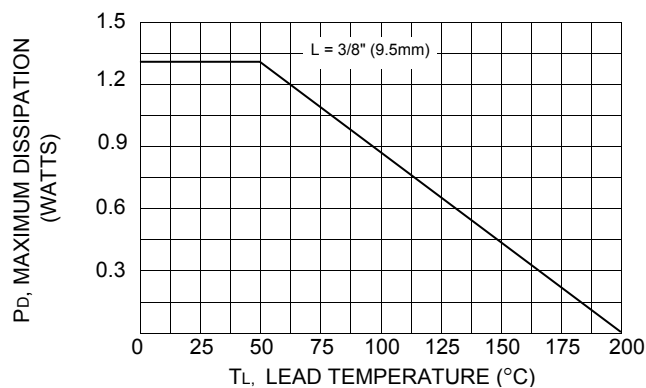
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 50\text{ °C}$ (Note1)	P_D	1.3	W
Maximum Forward Voltage at $I_F = 200\text{ mA}$	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)	(μ A)	(V)	(mA)
BZX85C2V4	2.4	80	20	400	1.0	150	1.0	410
BZX85C2V7	2.7	80	20	400	1.0	150	1.0	370
BZX85C3V0	3.0	80	20	400	1.0	100	1.0	340
BZX85C3V3	3.3	80	20	400	1.0	40	1.0	320
BZX85C3V6	3.6	70	20	500	1.0	20	1.0	290
BZX85C3V9	3.9	60	15	500	1.0	10	1.0	280
BZX85C4V3	4.3	50	13	500	1.0	3.0	1.0	250
BZX85C4V7	4.7	45	13	500	1.0	3.0	1.0	215
BZX85C5V1	5.1	45	10	500	1.0	1.0	1.5	200
BZX85C5V6	5.6	45	7.0	400	1.0	1.0	2.0	190
BZX85C6V2	6.2	35	4.0	300	1.0	1.0	3.0	170
BZX85C6V8	6.8	35	3.5	300	1.0	50	4.0	155
BZX85C7V5	7.5	35	3.0	200	0.5	50	4.5	140
BZX85C8V2	8.2	25	5.0	200	0.5	50	6.2	130
BZX85C9V1	9.1	25	5.0	200	0.5	50	6.8	120
BZX85C10	10	25	7.0	200	0.5	50	7.5	105
BZX85C11	11	20	8.0	300	0.5	50	8.2	97
BZX85C12	12	20	9.0	350	0.5	0.5	9.1	88
BZX85C13	13	20	10	400	0.5	0.5	10	79
BZX85C15	15	15	15	500	0.5	0.5	11	71
BZX85C16	16	15	15	500	0.5	0.5	12	66
BZX85C18	18	15	20	500	0.5	0.5	13	62
BZX85C19	19	15	20	550	0.5	0.5	14	58
BZX85C20	20	10	24	600	0.5	0.5	15	56
BZX85C22	22	10	25	600	0.5	0.5	16	52
BZX85C24	24	10	25	600	0.5	0.5	18	47
BZX85C27	27	8.0	30	750	0.25	0.5	20	41
BZX85C30	30	8.0	30	1000	0.25	0.5	22	36
BZX85C33	33	8.0	35	1000	0.25	0.5	24	33
BZX85C36	36	8.0	40	1000	0.25	0.5	27	30
BZX85C39	39	6.0	50	1000	0.25	0.5	30	28
BZX85C43	43	6.0	50	1000	0.25	0.5	33	26
BZX85C47	47	4.0	90	1500	0.25	0.5	36	23
BZX85C51	51	4.0	115	1500	0.25	0.5	39	21
BZX85C56	56	4.0	120	2000	0.25	0.5	43	19
BZX85C62	62	4.0	125	2000	0.25	0.5	47	16
BZX85C68	68	4.0	130	2000	0.25	0.5	51	15
BZX85C75	75	4.0	135	2000	0.25	0.5	56	14
BZX85C82	82	2.7	200	3000	0.25	0.5	62	12
BZX85C91	91	2.7	250	3000	0.25	0.5	68	10
BZX85C100	100	2.7	350	3000	0.25	0.5	75	9.4
BZX85C110	110	2.7	450	4000	0.25	0.5	82	8.6
BZX85C120	120	2.0	550	4500	0.25	0.5	91	7.8
BZX85C130	130	2.0	700	5000	0.25	0.5	100	7.0
BZX85C150	150	2.0	1000	6000	0.25	0.5	110	6.4
BZX85C160	160	1.5	1100	6500	0.25	0.5	120	5.8
BZX85C180	180	1.5	1200	7000	0.25	0.5	130	5.2
BZX85C200	200	1.5	1900	9990	0.25	0.5	150	4.7

Notes :

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5.0\%$.
- (2) " BZX " will be omitted in marking on the diode