

BZX2C3V6 THRU BZX2C220V

SILICON PLANAR ZENER DIODES

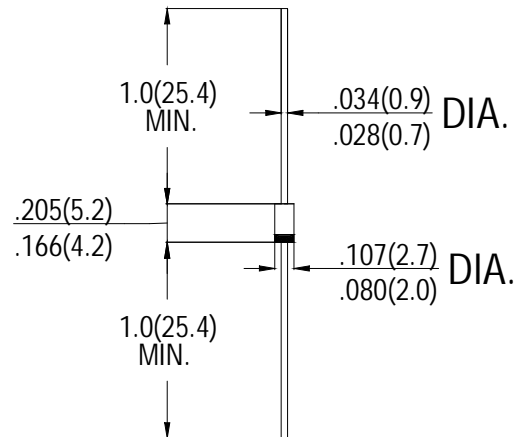
FEATURES

- Voltage Range: 3.6V to 220V
- Double siug type construction

MECHANICAL DATA

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any
- **Weight:** 0.33 grams

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

	SYMBOL	VALUE	units
Zener Current see Table "Characterstics"			
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	2.0 ¹⁾	W
Junction Temperature	T_J	175	°C

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

Characteristics at $T_{amb}=25^\circ\text{C}$

	SYMBOL	Min.	Typ.	Max.	units
Forward Voltage at $I_F=200\text{mA}$	V_F	--	--	1.2	V



SILICON PLANAR POWER ZENER DIODES

Characteristics at $T_j=25^\circ\text{C}$

TYPE	Nomonal Zener Voltage	Zener Voltage Range		Dynamic Recsistance			Reverse leakage current		Maximum DC Zener Current
		V	I_{ZT} (mA)	Ohm at I_{ZT}	Ohm at I_{ZK}	I_{ZK} (mA)	$I_R(\mu\text{A})$	$V_R(\text{V})$	
BZX2C3V6	3.6	3.4...3.8	139	5	400	1	50	1	504
BZX2C3V9	3.9	3.7...4.1	128	5	400	1	30	1	468
BZX2C4V3	4.3	4.0...4.6	116	4.5	400	1	20	1	434
BZX2C4V7	4.7	4.4...5.0	106	4.5	550	1	5	1	386
BZX2C5V1	5.1	4.8...5.4	98	3.5	600	1	5	1	356
BZX2C5V6	5.6	5.2...6.0	89.5	2.5	500	1	5	3	324
BZX2C6V2	6.2	5.8...6.6	80.5	1.5	700	1	5	3	292
BZX2C6V8	6.8	6.4...7.2	73.5	2	700	1	5	4	266
BZX2C7V5	7.5	7.0...7.9	66.5	2	700	0.5	5	5	242
BZX2C8V2	8.2	7.7...8.7	61	2.3	700	0.5	5	6	220
BZX2C9V1	9.1	8.5...9.6	55	2.5	700	0.5	2	7	200
BZX2C10V	10	9.4...10.6	50	3.5	700	0.25	3	7.6	182
BZX2C11V	11	10.4...11.6	45.5	4	700	0.25	1	8.4	166
BZX2C12V	12	11.4...12.7	41.5	4.5	700	0.25	1	9.1	152
BZX2C13V	13	12.4...14.1	38.5	5	700	0.25	0.5	9.9	138
BZX2C15V	15	13.8...15.6	33.4	7	700	0.25	0.5	11.4	122
BZX2C16V	16	15.3...17.1	31.2	8	700	0.25	0.5	12.2	114
BZX2C18V	18	16.8...19.1	27.8	10	750	0.25	0.5	13.7	100
BZX2C20V	20	18.8...21.2	25	11	750	0.25	0.5	15.2	90
BZX2C22V	22	20.8...23.3	22.8	12	750	0.25	0.5	16.7	82
BZX2C24V	24	22.8...25.6	20.8	13	750	0.25	0.5	18.2	76
BZX2C27V	27	25.1...28.9	18.5	18	750	0.25	0.5	20.6	68
BZX2C30V	30	28...32	16.6	20	1000	0.25	0.5	22.5	60
BZX2C33V	33	31...35	15.1	23	1000	0.25	0.5	25.1	55
BZX2C36V	36	34...38	13.9	25	1000	0.25	0.5	27.4	50
BZX2C39V	39	37...41	12.8	30	1000	0.25	0.5	29.7	47
BZX2C43V	43	40...46	11.6	35	1500	0.25	0.5	32.7	43
BZX2C47V	47	44...50	10.6	40	1500	0.25	0.5	35.8	39
BZX2C51V	51	48...54	9.8	48	1500	0.25	0.5	38.8	36
BZX2C56V	56	52...60	9	55	2000	0.25	0.5	42.6	32
BZX2C62V	62	58...66	8.1	60	2000	0.25	0.5	47.1	29
BZX2C68V	68	64...72	7.4	75	2000	0.25	0.5	51.7	27
BZX2C75V	75	70...87	6.1	90	3000	0.25	0.5	56	24
BZX2C82V	82	77...87	6.1	100	3000	0.25	0.5	62.2	22
BZX2C91V	91	85...96	5.5	125	3000	0.25	0.5	69.2	20
BZX2C100V	100	94...106	5	175	3000	0.25	0.5	76	18



BZX2C110V	110	104...116	4.5	250	4000	0.25	0.5	83.6	17
BZX2C120V	120	114...127	4.2	325	4500	0.25	0.5	91.2	15
BZX2C130V	130	124...141	3.8	400	5000	0.25	0.5	98.8	14
BZX2C150V	150	138...156	3.3	575	6000	0.25	0.5	114	12
BZX2C160V	160	153...171	3.1	650	6500	0.25	0.5	121.6	11
BZX2C180V	180	168...191	2.8	725	7000	0.25	0.5	136.8	10
BZX2C200V	200	188...212	2.5	900	7500	0.25	0.5	152	9
BZX2C220V	220	218...232	2.3	990	8000	0.25	0.5	167.2	8

¹⁾ Tested with pulses $t_p=20$ ms.

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