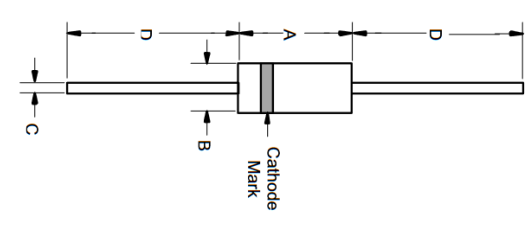


## Transient Voltage Suppressor Diodes

Primary characteristics		
Parameter	Value	Unit
$V_Z$ nom.	0.8 to 75	V
Power dissipation	500	mW

## Features

- Pb-free and RoHS compliant
- Solderable per MIL-STD-750, Method 2026
- Other tolerances and higher Zener voltages are available upon request

Case dimensions				
				
DO-35				
Unit	A	B	C	D
mm	3.9 MAX	φ1.9 MAX	φ0.5 MAX	27.5 MIN

Part numbering system	
<b>BZX55C</b> ↓ Series code	<b>24V</b> ↓ Zener voltage marking (see: <a href="#">Characteristics table</a> )

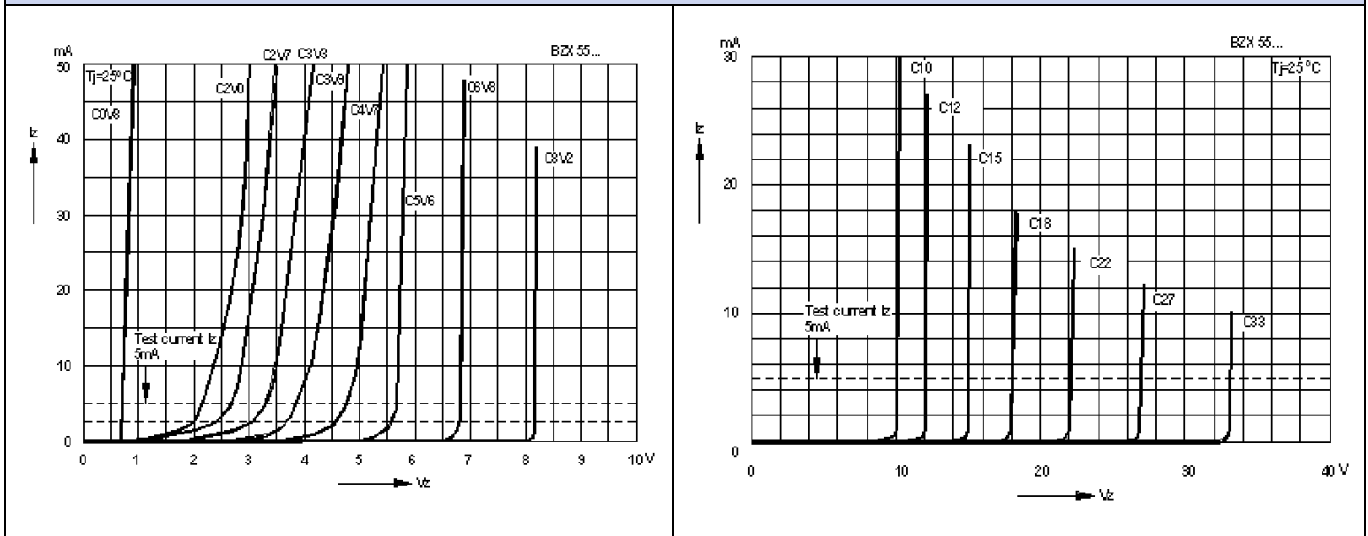
Absolute maximum ratings and general electrical characteristics ( $T_a = 25^\circ\text{C}$ )			
Parameter	Symbol	Value	Unit
Power dissipation	$P_{tot}$	500 <sup>1)</sup>	mW
Forward voltage @ $I_F=100\text{mA}$	$V_F$	1.0	V
Typical thermal resistance junction to ambient	$R_{\theta JA}$	0.3 <sup>1)</sup>	K/mW
Operating junction temperature and storage temperature range	$T_j, T_{stg}$	-55 ~ 175	°C
1) Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case			

Characteristics table ( $T_a = 25^\circ\text{C}$ )										
Type	Zener voltage range <sup>1)</sup>			Dynamic resistance (max)			Reverse leakage current (max)			Temp. Coefficient of Zener voltage
	$V_{Znom}$	$V_{ZT}$	@ $I_{ZT}$	$Z_{ZT}$	$Z_{ZK}$	$I_{ZK}$	$T_a=25^\circ\text{C}$	$T_a=125^\circ\text{C}$	@ $V_R$	$T_{Kvz}$
	V	V	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	$\mu\text{A}$	V	%/K
BZX55C0V8	0.8	0.73 ~ 0.83	5.0	8.0	50	1.0	-	-	-	-0.26 ~ -0.23
BZX55C2V0	2.0	1.8 ~ 2.15	5.0	85	600	1.0	100	200	1.0	-0.09 ~ -0.06
BZX55C2V2	2.2	2.08 ~ 2.33	5.0	85	600	1.0	75	160	1.0	-0.09 ~ -0.06
BZX55C2V4	2.4	2.28 ~ 2.56	5.0	85	600	1.0	50	100	1.0	-0.09 ~ -0.06
BZX55C2V7	2.7	2.5 ~ 2.9	5.0	85	600	1.0	10	50	1.0	-0.09 ~ -0.06
BZX55C3V0	3.0	2.8 ~ 3.2	5.0	85	600	1.0	4.0	40	1.0	-0.08 ~ -0.05
BZX55C3V3	3.3	3.1 ~ 3.5	5.0	85	600	1.0	2.0	40	1.0	-0.08 ~ -0.05
BZX55C3V6	3.6	3.4 ~ 3.8	5.0	85	600	1.0	2.0	40	1.0	-0.08 ~ -0.05
BZX55C3V9	3.9	3.7 ~ 4.1	5.0	85	600	1.0	2.0	40	1.0	-0.08 ~ -0.05
BZX55C4V3	4.3	4.0 ~ 4.6	5.0	75	600	1.0	1.0	20	1.0	-0.06 ~ -0.03
BZX55C4V7	4.7	4.4 ~ 5.0	5.0	60	600	1.0	0.5	10	1.0	-0.05 ~ +0.02
BZX55C5V1	5.1	4.8 ~ 5.4	5.0	35	550	1.0	0.1	2.0	1.0	-0.02 ~ +0.02
BZX55C5V6	5.6	5.2 ~ 6.0	5.0	25	450	1.0	0.1	2.0	1.0	-0.05 ~ +0.05
BZX55C6V2	6.2	5.8 ~ 6.6	5.0	10	200	1.0	0.1	2.0	2.0	0.03 ~ 0.06
BZX55C6V8	6.8	6.4 ~ 7.2	5.0	8.0	150	1.0	0.1	2.0	3.0	0.03 ~ 0.07
BZX55C7V5	7.5	7.0 ~ 7.9	5.0	7.0	50	1.0	0.1	2.0	5.0	0.03 ~ 0.07
BZX55C8V2	8.2	7.7 ~ 8.7	5.0	7.0	50	1.0	0.1	2.0	6.2	0.03 ~ 0.08
BZX55C9V1	9.1	8.5 ~ 9.6	5.0	10	50	1.0	0.1	2.0	6.8	0.03 ~ 0.09
BZX55C10	10	9.4 ~ 10.6	5.0	15	70	1.0	0.1	2.0	7.5	0.03 ~ 0.1
BZX55C11	11	10.4 ~ 11.6	5.0	20	70	1.0	0.1	2.0	8.2	0.03 ~ 0.11
BZX55C12	12	11.4 ~ 12.7	5.0	20	90	1.0	0.1	2.0	9.1	0.03 ~ 0.11
BZX55C13	13	12.4 ~ 14.1	5.0	26	110	1.0	0.1	2.0	10	0.03 ~ 0.11
BZX55C15	15	13.8 ~ 15.6	5.0	30	110	1.0	0.1	2.0	11	0.03 ~ 0.11
BZX55C16	16	15.3 ~ 17.1	5.0	40	170	1.0	0.1	2.0	12	0.03 ~ 0.11
BZX55C18	18	16.8 ~ 19.1	5.0	50	170	1.0	0.1	2.0	13	0.03 ~ 0.11
BZX55C20	20	18.8 ~ 21.2	5.0	55	220	1.0	0.1	2.0	15	0.03 ~ 0.11
BZX55C22	22	20.8 ~ 23.3	5.0	55	220	1.0	0.1	2.0	16	0.04 ~ 0.12
BZX55C24	24	22.8 ~ 25.6	5.0	80	220	1.0	0.1	2.0	18	0.04 ~ 0.12
BZX55C27	27	25.1 ~ 28.9	5.0	80	220	1.0	0.1	2.0	20	0.04 ~ 0.12
BZX55C30	30	28 ~ 32	5.0	80	220	1.0	0.1	2.0	22	0.04 ~ 0.12
BZX55C33	33	31 ~ 35	5.0	80	220	1.0	0.1	2.0	24	0.04 ~ 0.12
BZX55C36	36	34 ~ 38	5.0	80	220	1.0	0.1	2.0	27	0.04 ~ 0.12
BZX55C39	39	37 ~ 41	2.5	90	500	0.5	0.1	5.0	30	0.04 ~ 0.12
BZX55C43	43	40 ~ 46	2.5	90	500	0.5	0.1	5.0	33	0.04 ~ 0.12
BZX55C47	47	44 ~ 50	2.5	110	600	0.5	0.1	5.0	36	0.04 ~ 0.12
BZX55C51	51	48 ~ 54	2.5	125	700	0.5	0.1	10	39	0.04 ~ 0.12
BZX55C56	56	52 ~ 60	2.5	135	700	0.5	0.1	10	43	0.04 ~ 0.12
BZX55C62	62	58 ~ 66	2.5	150	1000	0.5	0.1	10	47	0.04 ~ 0.12
BZX55C68	68	64 ~ 72	2.5	200	1000	0.5	0.1	10	51	0.04 ~ 0.12
BZX55C75	75	70 ~ 79	2.5	250	1000	0.5	0.1	10	56	0.04 ~ 0.12

1) Tested with pulses  $t_p=20\text{ms}$

2) The BZX55C0V8 is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode lead to the negative pole

## Breakdown characteristics



## Ordering information

Part number	Package	Shipping quantity	Dimensions
BZX55C0V8 ~ BZX55C75V	DO-35	5000 pcs / box	---

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