500mW Zener Diodes

Features

- Planar Die Construction
- 500mW Power Dissipation
- Zener Voltage: 2.4V to 75V
- Ideally Suited for Automated Assembly Processes
- RoHS compliant and Halogen Free

DO-35

RoHS Compliant

HALOGEN FREE

Mechanical Data

Case:	Molded glass DO-35
Terminals:	Leads, tin-lead plated solderable per MIL-STD-750, method 2026
Polarity:	Color band denotes cathode end
Approx Weight:	0.13 gram

Maximum Ratings *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	Value	Unit	Conditions
P_{tot}	Power Dissipation at Ta=25°C	500	mW	
R_{thJA}	Thermal Resistance Junction to Ambient Air	0.3	K/mW	
V_F	Max. Forward Voltage	1	V	IF=100mA
T_J	Junction Temperature	175	°C	
T_{STG}	Storage Temperature Range	-65 to +175	°C	

Note: Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.

Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

P/N	Normal Zener Voltage @ IZT (Note)			Test Current	Max.Zener Impendance (Ω)			Maximum Reverse Leakage Current IR @ VR	
	Nom.	Min.	Max.						
	$V_{Z(V)}$	$V_{Z(V)}$	$V_{Z(V)}$	$I_{ZT(mA)}$	Z_{ZT} @ I_{ZT}	Z_{Zk} @ I_{Zk}	$I_{zk(mA)}$	$I_{R(\mu A)}$	$V_{R(V)}$
BZX55C2V4	2.4	2.28	2.56	5	85	600	1	50	1
BZX55C2V7	2.7	2.5	2.9	5	85	600	1	10	1
BZX55C3V0	3	2.8	3.2	5	85	600	1	4	1
BZX55C3V3	3.3	3.1	3.5	5	85	600	1	2	1
BZX55C3V6	3.6	3.4	3.8	5	85	600	1	2	1
BZX55C3V9	3.9	3.7	4.1	5	85	600	1	2	1
BZX55C4V3	4.3	4.0	4.6	5	75	600	1	1	1
BZX55C4V7	4.7	4.4	5.0	5	60	600	1	0.5	1
BZX55C5V1	5.1	4.8	5.4	5	35	550	1	0.1	1
BZX55C5V6	5.6	5.2	6.0	5	25	450	1	0.1	1
BZX55C6V2	6.2	5.8	6.6	5	10	200	1	0.1	2
BZX55C6V8	6.8	6.4	7.2	5	8	150	1	0.1	3
BZX55C7V5	7.5	7.0	7.9	5	7	50	1	0.1	5
BZX55C8V2	8.2	7.7	8.7	5	7	50	1	0.1	6
BZX55C9V1	9.1	8.5	9.6	5	10	50	1	0.1	7
BZX55C10	10	9.4	10.6	5	15	70	1	0.1	7.5
BZX55C11	11	10.4	11.6	5	20	70	1	0.1	8.5
BZX55C12	12	11.4	12.7	5	20	90	1	0.1	9
BZX55C13	13	12.4	14.1	5	26	110	1	0.1	10
BZX55C15	15	13.8	15.6	5	30	110	1	0.1	11
BZX55C16	16	15.3	17.1	5	40	170	1	0.1	12
BZX55C18	18	16.8	19.1	5	50	170	1	0.1	14
BZX55C20	20	18.8	21.2	5	55	220	1	0.1	15
BZX55C22	22	20.8	23.3	5	55	220	1	0.1	17
BZX55C24	24	22.8	25.6	5	80	220	1	0.1	18
BZX55C27	27	25.1	28.9	5	80	220	1	0.1	20
BZX55C30	30	28.0	32.0	5	80	220	1	0.1	22

BZX55C2V4 - BZX55C75

P/N	Normal Zener Voltage @ IZT (Note)			Test Current	Max.Zener Impendance (Ω)			Maximum Reverse Leakage Current IR @ VR	
	Nom.	Min.	Max.						
	$V_{Z(V)}$	$V_{Z(V)}$	$V_{Z(V)}$	$I_{ZT(mA)}$	Z_{ZT} @ I_{ZT}	Z_{Zk} @ I_{zk}	$I_{zk(mA)}$	$I_{R(\mu A)}$	$V_{R(V)}$
BZX55C33	33	31.0	35.0	5	80	220	1	0.1	24
BZX55C36	36	34.0	38.0	5	80	220	1	0.1	27
BZX55C39	39	37.0	41.0	2.5	90	500	1	0.1	30
BZX55C43	43	40.0	46.0	2.5	90	600	1	0.1	33
BZX55C47	47	44.0	50.0	2.5	110	700	1	0.1	36
BZX55C51	51	48.0	54.0	2.5	125	700	0.5	0.1	39
BZX55C56	56	52.0	60.0	2.5	135	1000	0.5	0.1	43
BZX55C62	62	58.0	66.0	2.5	150	1000	0.5	0.1	47
BZX55C68	68	64.0	72.0	2.5	200	1000	0.5	0.1	51
BZX55C75	75	70.0	79.0	2.5	250	1500	0.5	0.1	56

Note: Standard Voltage tolerance is ± %5, measured with Pulses Tp=40 mSec.

Typical Characteristics Curves

Fig.1-Total Power Dissipation vs. Ambient Temperature

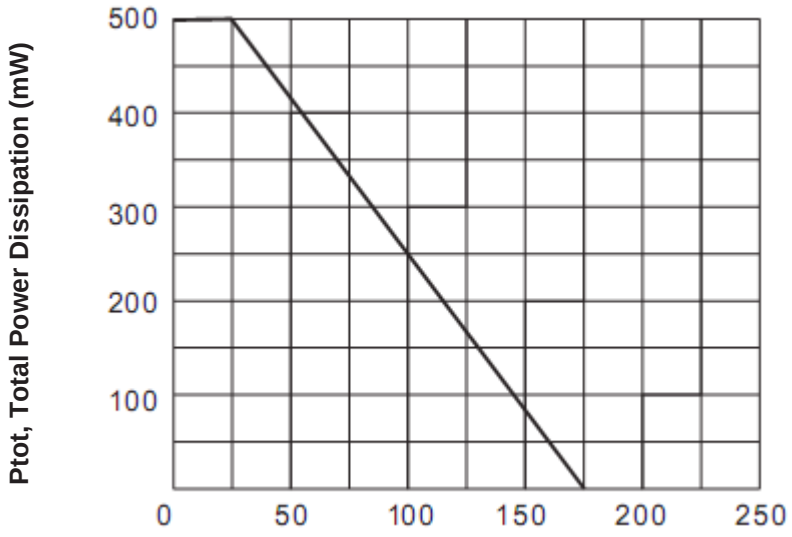
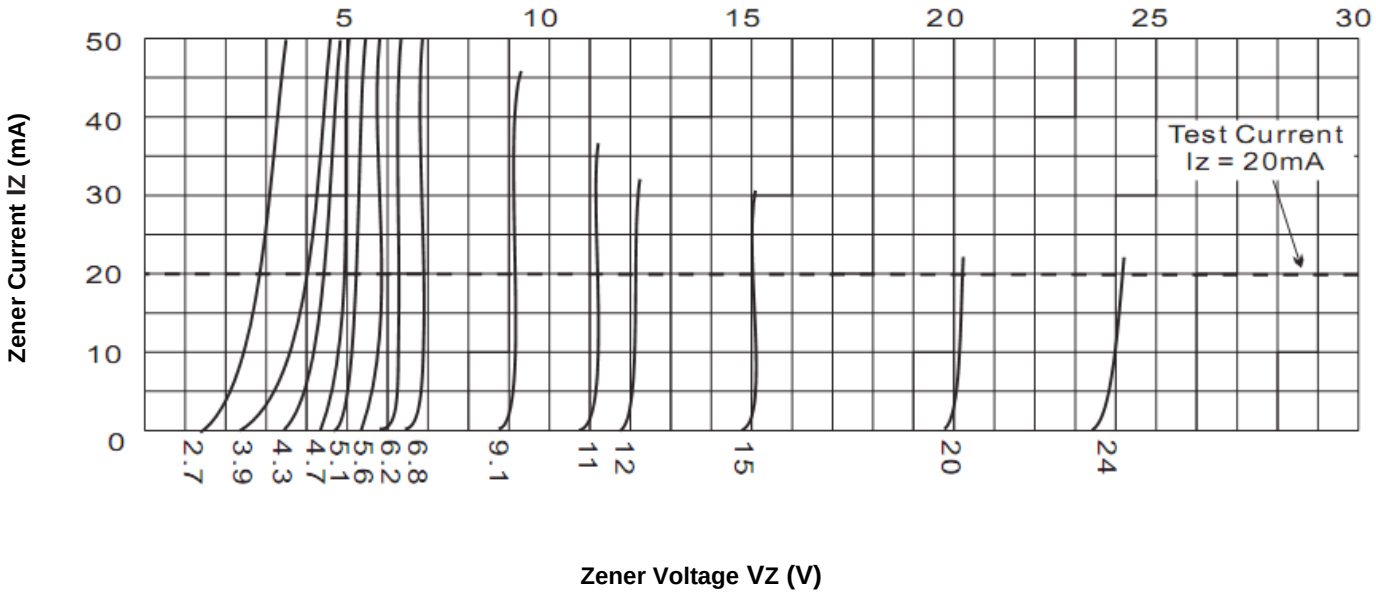
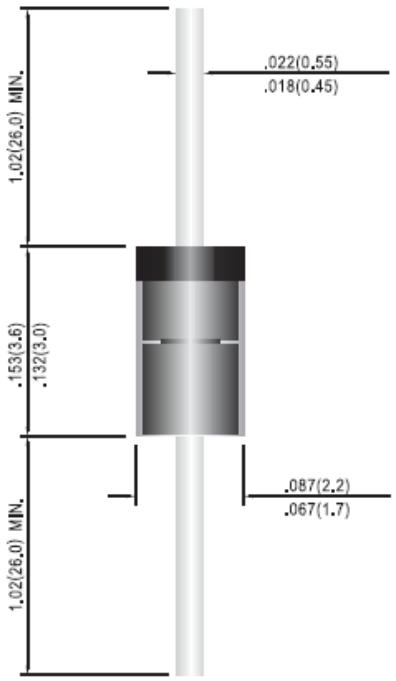


Fig.2-Breakdown Characteristics



Dimensions in inch (mm)



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