

BZX85C3V3~BZX85C75

SILICON ZENER DIODE

VOLTAGE	3.3 to 75 V	POWER	1.3 Watts
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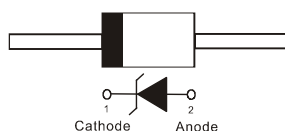
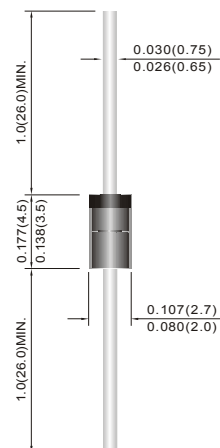
FEATURES

- Low profile package
- Built-in strain relief
- Low inductance
- High temperature soldering : 260°C /10 seconds at terminals
- Glass package has Underwriters Laboratory Flammability Classification
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: Molded Glass DO-41G
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Mounting position:Any

DO-41G Unit : inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
Power Dissipation at Tamb = 25 °C	P _{TOT}	1.3*	W
Junction Temperature	T _J	-65 to +200	°C
Storage Temperature Range	T _{STG}	-65 to +200	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Units
Thermal Resistance Junction to Ambient Air	R _{θJA}	--	--	170*	K/W
Forward Voltage at I _F = 200mA	V _F	--	--	1.2	V

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

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Part Number	Maximum Zener Voltage			Maximum Zener Impedance				Maximum Leakage Current		Marking Code
	V _Z @ I _{ZT}			Z _{zT} @ I _{ZT}		Z _{zK} @ I _{zK}		I _R @ V _R		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
1.3 Watt Zener Diodes (Glass Sealed Envelope)										
BZX85C3V3	3.3	3.10	3.50	20	80	400	1	40	1	BZX85C3V3
BZX85C3V6	3.6	3.40	3.80	20	60	500	1	20	1	BZX85C3V6
BZX85C3V9	3.9	3.70	4.10	15	60	500	1	10	1	BZX85C3V9
BZX85C4V3	4.3	4.00	4.60	13	60	500	1	3	1	BZX85C4V3
BZX85C4V7	4.7	4.40	5.00	13	45	600	1	3	1	BZX85C4V7
BZX85C5V1	5.1	4.80	5.40	10	45	500	1	1	1.5	BZX85C5V1
BZX85C5V6	5.6	5.20	6.00	7	45	400	1	1	2	BZX85C5V6
BZX85C6V2	6.2	5.80	6.60	4	35	300	1	1	3	BZX85C6V2
BZX85C6V8	6.8	6.40	7.20	3.5	35	300	1	1	4	BZX85C6V8
BZX85C7V5	7.5	7.00	7.90	3	35	200	0.5	1	4.5	BZX85C7V5
BZX85C8V2	8.2	7.70	8.70	5	25	200	0.5	1	6.2	BZX85C8V2
BZX85C9V1	9.1	8.50	9.60	5	25	200	0.5	1	6.8	BZX85C9V1
BZX85C10	10	9.40	10.60	7	25	200	0.5	0.5	7.0	BZX85C10
BZX85C11	11	10.40	11.60	8	20	300	0.5	0.5	8.2	BZX85C11
BZX85C12	12	11.40	12.70	9	20	350	0.5	0.5	9.1	BZX85C12
BZX85C13	13	12.40	14.10	10	20	400	0.5	0.5	10	BZX85C13
BZX85C15	15	13.80	15.60	15	15	500	0.5	0.5	11	BZX85C15
BZX85C16	16	15.30	17.10	15	15	500	0.5	0.5	12	BZX85C16
BZX85C18	18	16.80	19.10	20	15	500	0.5	0.5	13	BZX85C18
BZX85C20	20	18.80	21.20	24	10	600	0.5	0.5	15	BZX85C20
BZX85C22	22	20.80	23.30	25	10	600	0.5	0.5	16	BZX85C22
BZX85C24	24	22.80	25.60	25	10	600	0.5	0.5	18	BZX85C24
BZX85C27	27	25.10	28.90	30	8.0	750	0.25	0.5	20	BZX85C27
BZX85C30	30	28.00	32.00	30	8.0	1000	0.25	0.5	22	BZX85C30
BZX85C33	33	31.00	35.00	35	8.0	1000	0.25	0.5	24	BZX85C33
BZX85C36	36	34.00	38.00	40	8.0	1000	0.25	0.5	27	BZX85C36
BZX85C39	39	37.00	41.00	50	6.0	1000	0.25	0.5	30	BZX85C39
BZX85C43	43	40.00	46.00	50	6.0	1000	0.25	0.5	33	BZX85C43
BZX85C47	47	44.00	50.00	90	4.0	1500	0.25	0.5	36	BZX85C47
BZX85C51	51	48.00	54.00	115	4.0	1500	0.25	0.5	39	BZX85C51
BZX85C56	56	52.00	60.00	120	4.0	2000	0.25	0.5	43	BZX85C56
BZX85C62	62	58.00	66.00	125	4.0	2000	0.25	0.5	47	BZX85C62
BZX85C68	68	64.00	72.00	130	4.0	2000	0.25	0.5	51	BZX85C68
BZX85C75	75	70.00	79.00	135	4.0	2000	0.25	0.5	56	BZX85C75

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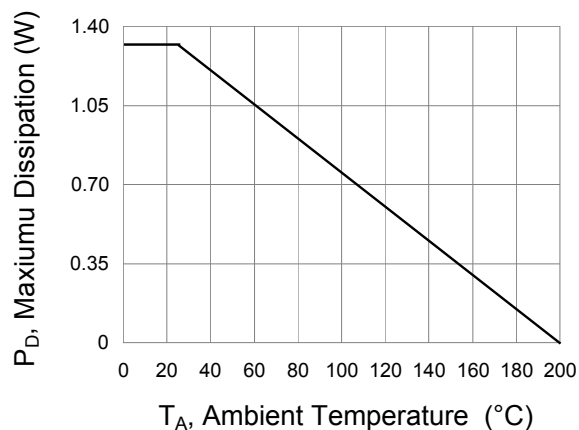


Fig.1 Steady-State Power Derating Curve

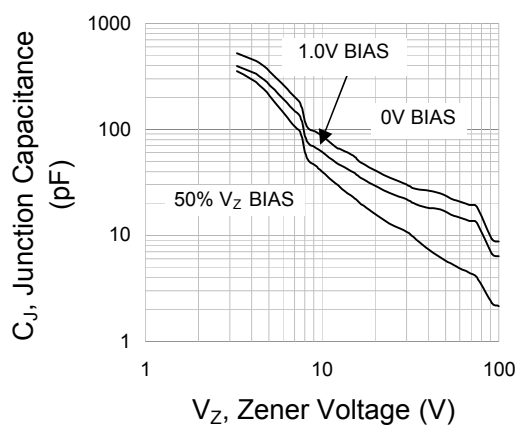


Fig.2 Typical Junction Capacitance

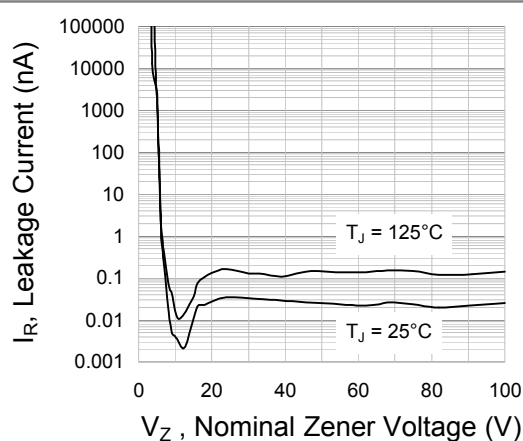


Fig.3 Typical Leakage Characteristics

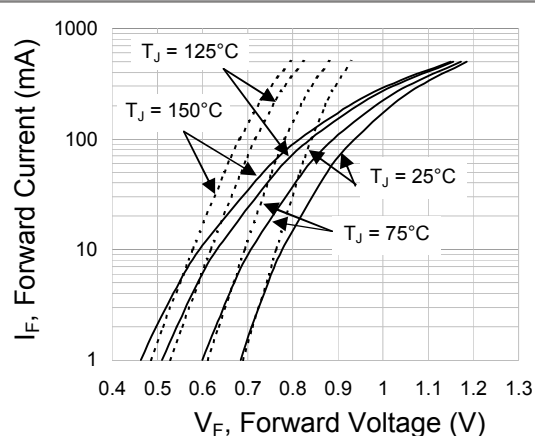


Fig.4 Typical Forward Characteristics

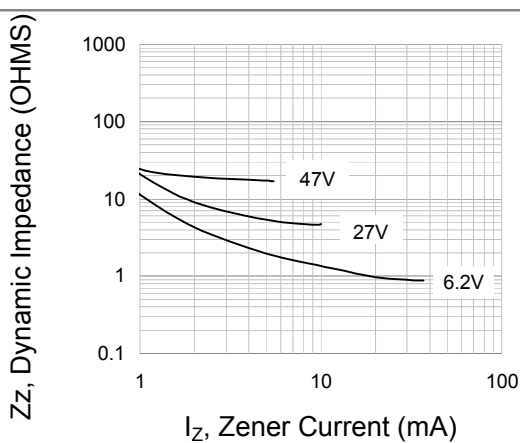


Fig.5 Typical Effect Of Zener Current On Zener Impedance

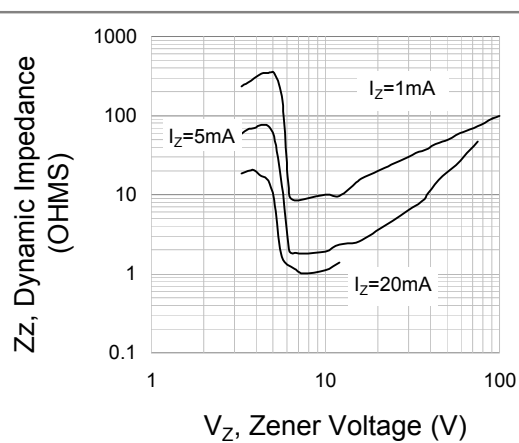


Fig.6 Typical Effect Of Zener Voltage On Zener Impedance

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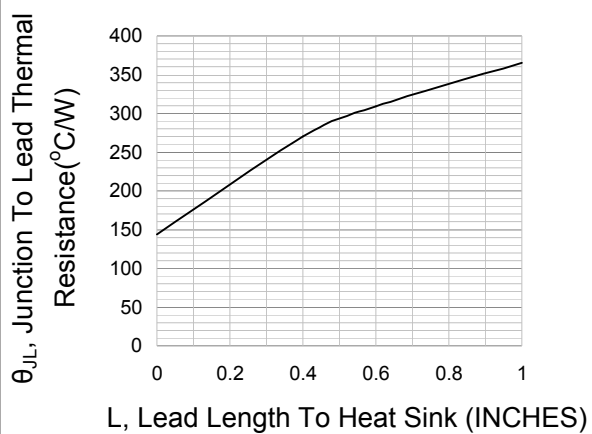


Fig.7 Thermal Resistance Versus Lead Length

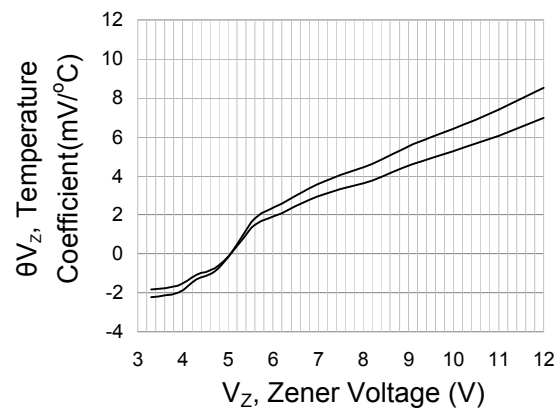


Fig.8 Temperature Coefficient (+25 $^{\circ}\text{C}$ To +150 $^{\circ}\text{C}$ Temperature Range ; 90% Of The Units Are In The Ranges Indicated)

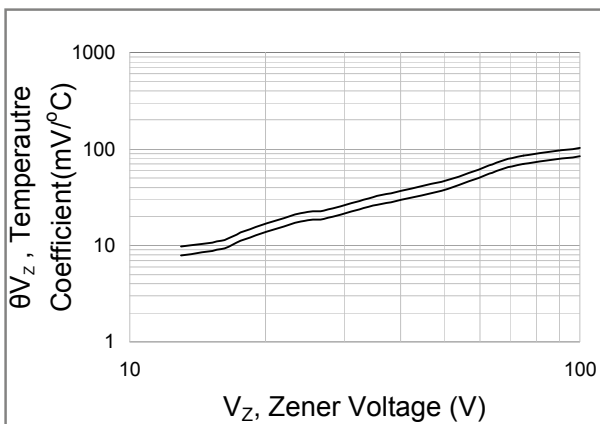


Fig.9 Temperature Coefficient (+25 $^{\circ}\text{C}$ To +150 $^{\circ}\text{C}$ Temperature Range ; 90% Of The Units Are In The Ranges Indicated)

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Part No_packing code_Version

BZX85C3V3_AX_10001

BZX85C3V3_AY_10001

BZX85C3V3_R2_10001

BZX85C3V3_B0_10001

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

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