RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

BZX85C2V7 THRU BZX85C200

SILICON ZENER DIODE

VOLTAGE **2.7 to 200** ***Volts*** ***POWER*** **1.3 Watts**

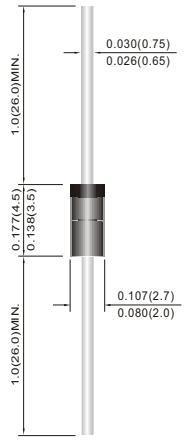
FEATURES

* Low profile package
* Built-in strain relief
* Low inductance
* High temperature soldering : 260°C /10 seconds
* 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 guaranteed
- Polarity: Color band denotes positive end
- Mounting position:Any
- Weight: 0.012 ounce, 0.317 gram

DO-41G



Dimensions in inches and (millimeters)

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	$R_{\theta JA}$	--	--	170	K/W
Forward Voltage at I_F = 200mA	V_F	--	--	1.2	V
Valid provided that leads at a distance of 10 mm from case are kept at ambient temperature					

2019-02/09
REV:O

Part Number	marking code	Nominal Zener Voltage			Max.Zener Impedance				Max Reverse	
		Vz@Izt			Zzt @ Izt		Zzk @ Izk		Tr@Vr	
		Nom V	MIN.V	MAX.V	Ω	mA	Ω	Ma	V	μA
BZX85C2V7	BZX85C2V7	2.7	2.5	2.9	20	80	400	1.0	1.0	150
BZX85C3V0	BZX85C3V0	3.0	2.8	3.2	20	80	400	1.0	1.0	100
BZX85C3V3	BZX85C3V3	3.3	3.1	3.5	20	80	400	1.0	1.0	40
BZX85C3V6	BZX85C3V6	3.6	3.4	3.8	20	60	500	1.0	1.0	20
BZX85C3V9	BZX85C3V9	3.9	3.7	4.1	15	60	500	1.0	1.0	10
BZX85C4V3	BZX85C4V3	4.3	4.0	4.6	13	60	500	1.0	1.0	3.0
BZX85C4V7	BZX85C4V7	4.7	4.4	5.0	13	45	600	1.0	1.0	3.0
BZX85C5V1	BZX85C5V1	5.1	4.8	5.4	10	45	500	1.0	1.5	1.0
BZX85C5V6	BZX85C5V6	5.6	5.2	6.0	7.0	45	400	1.0	2.0	1.0
BZX85C6V2	BZX85C6V2	6.2	5.8	6.6	4.0	35	300	1.0	3.0	1.0
BZX85C6V8	BZX85C6V8	6.8	6.4	7.2	3.5	35	300	1.0	4.0	1.0
BZX85C7V5	BZX85C7V5	7.5	7	7.9	3.0	35	200	0.5	4.5	1.0
BZX85C8V2	BZX85C8V2	8.2	7.7	8.7	5.0	25	200	0.5	6.2	1.0
BZX85C9V1	BZX85C9V1	9.1	8.5	9.6	5.0	25	200	0.5	6.8	1.0
BZX85C10	BZX85C10	10	9.4	10.6	7.0	25	200	0.5	7.0	0.5
BZX85C11	BZX85C11	11	10.4	11.6	8.0	20	300	0.5	8.2	0.5
BZX85C12	BZX85C12	12	11.4	12.7	9.0	20	350	0.5	9.1	0.5
BZX85C13	BZX85C13	13	12.4	14.1	10	20	400	0.5	10	0.5
BZX85C15	BZX85C15	15	13.8	15.6	15	15	500	0.5	11	0.5
BZX85C16	BZX85C16	16	15.3	17.1	15	15	500	0.5	12	0.5
BZX85C18	BZX85C18	18	16.8	19.1	20	15	500	0.5	13	0.5
BZX85C20	BZX85C20	20	18.8	21.2	24	10	600	0.5	15	0.5
BZX85C22	BZX85C22	22	20.8	23.3	25	10	600	0.5	16	0.5
BZX85C24	BZX85C24	24	22.8	25.6	25	10	600	0.5	18	0.5
BZX85C27	BZX85C27	27	25.1	28.9	30	8.0	750	0.25	20	0.5
BZX85C30	BZX85C30	30	28	32	30	8.0	1000	0.25	22	0.5
BZX85C33	BZX85C33	33	31	35	35	8.0	1000	0.25	24	0.5
BZX85C36	BZX85C36	36	34	38	40	8.0	1000	0.25	27	0.5
BZX85C39	BZX85C39	39	37	41	50	6.0	1000	0.25	30	0.5
BZX85C43	BZX85C43	43	40	46	50	6.0	1000	0.25	33	0.5
BZX85C47	BZX85C47	47	44	50	90	4.0	1500	0.25	36	0.5
BZX85C51	BZX85C51	54	48	54	115	4.0	1500	0.25	39	0.5
BZX85C56	BZX85C56	56	52	60	120	4.0	2000	0.25	43	0.5
BZX85C62	BZX85C62	62	58	66	125	4.0	2000	0.25	47	0.5
BZX85C68	BZX85C68	68	64	72	130	4.0	2000	0.25	51	0.5
BZX85C75	BZX85C75	75	70	79	135	4.0	2000	0.25	56	0.5
BZX85C82	BZX85C82	82	77	87	200	2.7	3000	0.25	62	0.5
BZX85C91	BZX85C91	91	85	96	250	2.7	3000	0.25	68	0.5
BZX85C100	BZX85C100	100	96	106	350	2.7	3000	0.25	75	0.5
BZX85C110	BZX85C110	110	104	116	450	2.7	4000	0.25	82	0.5
BZX85C120	BZX85C120	120	114	127	550	2.0	4500	0.25	91	0.5
BZX85C130	BZX85C130	130	124	141	700	2.0	5000	0.25	100	0.5
BZX85C150	BZX85C150	150	138	156	1000	2.0	6000	0.25	110	0.5
BZX85C160	BZX85C160	160	153	171	1100	1.5	6500	0.25	120	0.5
BZX85C180	BZX85C180	180	168	191	1200	1.5	7000	0.25	130	0.5
BZX85C200	BZX85C200	200	188	212	1500	1.5	8000	0.25	150	0.5

STANDARD VOLTAGE TOLERANCE IS+5% AND:
SUFFLX “A” FOR +1%
SUFFLX “B” FOR +2%
SUFFLX “C” FOR +5%
SUFFLX “D” FOR +20%

RATING AND CHARACTERISTICS CURVES(BZX85C2V7 THRU BZX85C200)

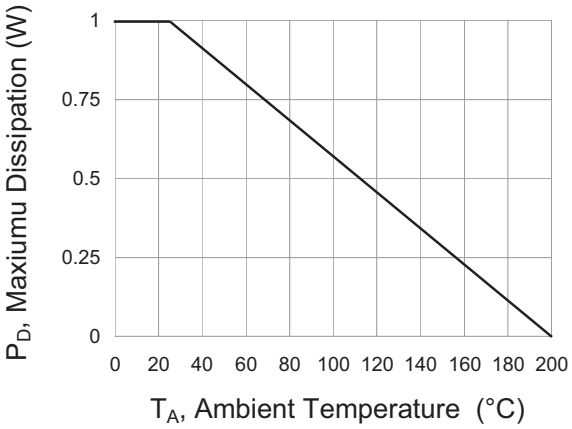


Fig.1 Steady-State Power Derating Curve

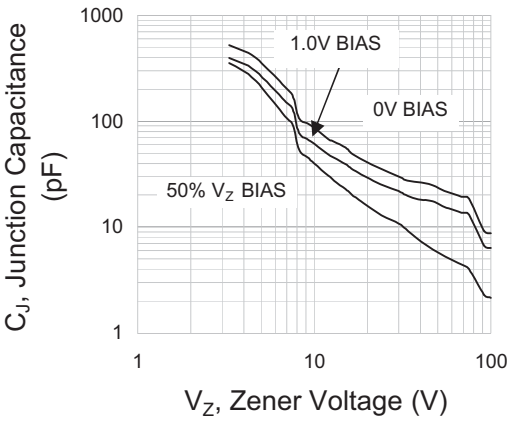


Fig.2 Typical Junction Capacitance

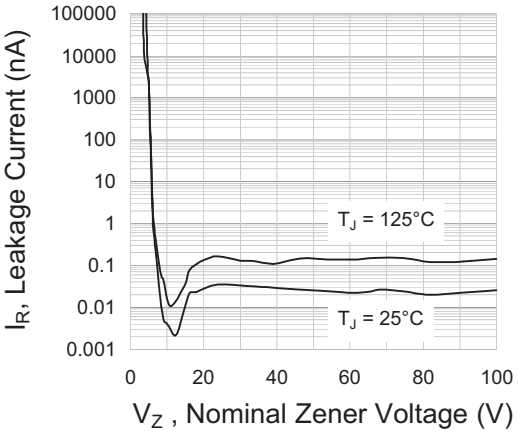


Fig.3 Typical Leakage Characteristics

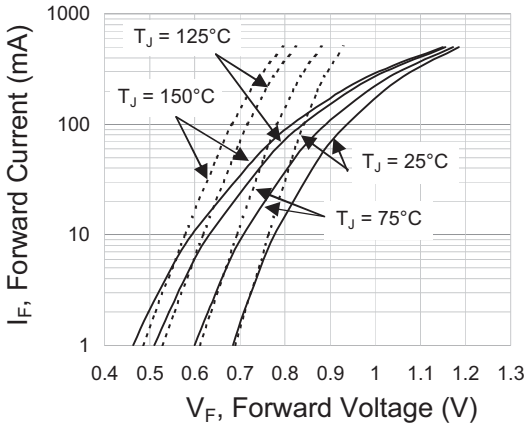


Fig.4 Typical Forward Characteristics

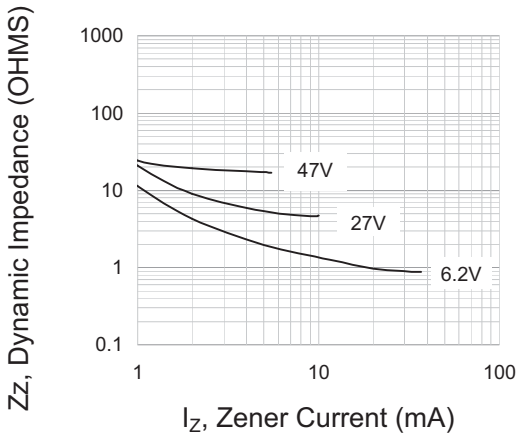


Fig.5 Typical Effect Of Zener Current On Zener Impedance

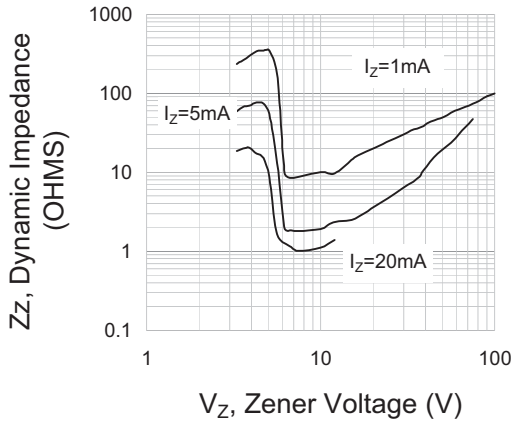


Fig.6 Typical Effect Of Zener Voltage On Zener Impedance

RATING AND CHARACTERISTICS CURVES(BZX85C2V7 THRU BZX85C200)

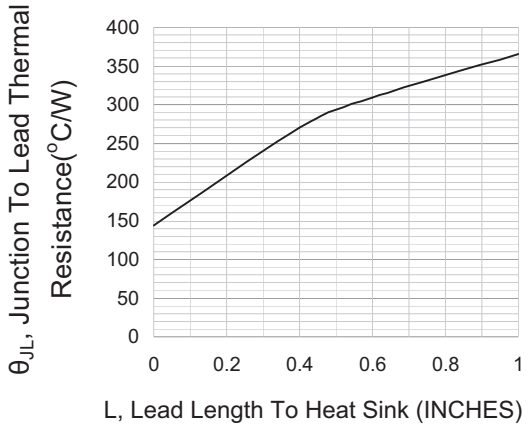


Fig7.Thermal Resistance Versus Lead Length

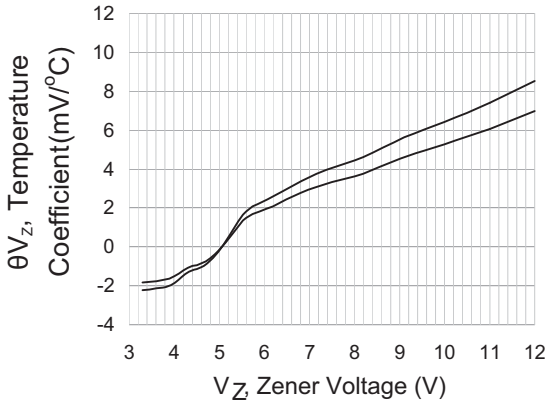


Fig8.Temperature Coefficient (+25°C To+150°C Temperature Range;90% Of The Units Are In The Ranges Indicated

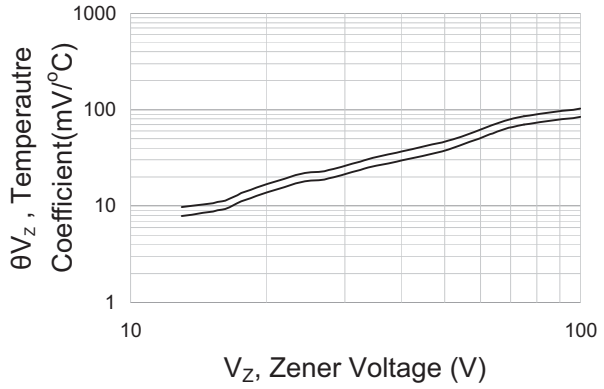


Fig9.Temperature Coefficient (+25°C To+150°C Temperature Range;90% Of The Units Are In The Ranges Indicated

PACKAGING OF DIODE

BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-35	-B	10,000	240*100*100	410*350*275	120,000	21.5
DO-41G	-B	5,000	90*240*100	400*268*225	40,000	12.11

REEL PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-35	-T	10,000	5.0	52	356	370*370*420	50,000	11.00
DO-41G	-T	5,000	5.0	52	356	370*370*420	25,000	11.50
SOT-23/-3L	-T	3,000	---	---	178	438*438*220	180,000	---
LL-34	-T	2,500	---	---	178	385*270*220	90,000	7.50
SOD-123	-T	3,000	---	---	178	438*438*220	180,000	9.00
SOD-323	-T	3,000	---	---	178	438*438*220	180,000	9.00
SOT-323	-T	3,000	---	---	178	438*438*220	180,000	9.00
LL-41	-W	5,000	---	---	330	370*370*420	50,000	6.6

AMMO PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON (EA)	GROSS WEIGHT (Kg)
DO-35	-F	5,000	5.0	52	250*80*80	425*270*220	100,000	20.00
DO-41G	-F	3,000	5.0	52	250*80*80	425*270*220	60,000	20.00

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