BZV55C2V4 THRU BZV55C75

Surface Mount Zener Diode

Zener Voltage 2.2 to 70 V
Power Dissipation 500m Watts

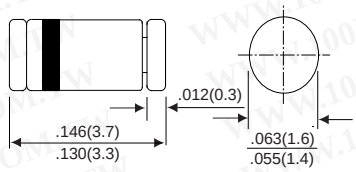
Features

- ✶ For surface mounted applications
- ✶ 500 mW power dissipation
- ✶ Ideally suited for automated assembly processes

Mechanical Data

- ✶ Case: Molded plastic SOD-80
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-750 method 2026
- ✶ Polarity: cathode band
- ✶ Mounting position: Any
- ✶ Weight: 0.05gram

SOD-80



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Maximum Forward Voltage Drop at IF=10mA	V_F	1.5	V
Power Dissipation (Note 1)	P_D	500	mW
Thermal Resistane Junction to Ambient Air	R_{thA}	500	K/W
Operating junction and Storage Temperature Range	T_J	-55 to +150	°C

NOTES : (1) Mounted on 5.0mm^2(.013mm thick) land areas.
(2) Measurd on 8.3ms, single half-sine wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

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Part No.	Electrical Characteristics (Ta=25°C)								Temp. Coefficient at IZT (%/K)	
	Vz(Min) (V)	Vz(Max) (V)	IZT (mA)	ZZT (Ohm)	IZK (mA)	ZZK(1) (Ohm)	IR(uA) Max.	VR(V)	Min.	Max.
BZV55C2V4	2.20	2.60	5.0	85	1.0	600	50	1	-0.08	-0.06
BZV55C2V7	2.50	2.90	5.0	75	1.0	500	20	1	-0.09	-0.04
BZV55C3V0	2.80	3.20	5.0	80	1.0	500	10	1	-0.09	-0.03
BZV55C3V3	3.10	3.50	5.0	80	1.0	500	5	1	-0.08	-0.03
BZV55C3V6	3.40	3.80	5.0	80	1.0	500	3	1	-0.08	-0.03
BZV55C3V9	3.70	4.10	5.0	80	1.0	500	3	1	-0.07	-0.03
BZV55C4V3	4.00	4.60	5.0	80	1.0	500	3	1	-0.06	-0.01
BZV55C4V7	4.40	5.00	5.0	70	1.0	500	2	2	-0.05	+0.02
BZV55C5V1	4.80	5.40	5.0	30	1.0	480	1	2	-0.03	+0.04
BZV55C5V6	5.20	6.00	5.0	10	1.0	400	3	2	-0.02	+0.06
BZV55C6V2	5.80	6.60	5.0	4.8	1.0	200	2	4	-0.01	+0.07
BZV55C6V8	6.40	7.20	5.0	4.5	1.0	150	1	4	+0.02	+0.07
BZV55C7V5	7.00	7.90	5.0	4.0	1.0	50	0.7	5	+0.03	+0.07
BZV55C8V2	7.70	8.70	5.0	4.5	1.0	50	0.5	5	+0.04	+0.07
BZV55C9V1	8.50	9.60	5.0	4.8	1.0	50	0.2	6	+0.05	+0.08
BZV55C10	9.40	10.60	5.0	5.2	1.0	70	0.1	7	+0.05	+0.08
BZV55C11	10.40	11.60	5.0	6.0	1.0	70	0.1	8	+0.05	+0.09
BZV55C12	11.40	12.70	5.0	7.0	1.0	90	0.1	8	+0.06	+0.09
BZV55C13	12.40	14.10	5.0	9.0	1.0	110	0.05	8	+0.07	+0.09
BZV55C15	13.80	15.60	5.0	11	1.0	110	0.05	10	+0.07	+0.09
BZV55C16	15.30	17.10	5.0	13	1.0	170	0.05	11	+0.08	+0.095
BZV55C18	16.80	19.10	5.0	18	1.0	170	0.05	13	+0.08	+0.095
BZV55C20	18.80	21.20	5.0	20	1.0	220	0.05	14	+0.08	+0.1
BZV55C22	20.80	23.30	5.0	25	1.0	220	0.05	15	+0.08	+0.1
BZV55C24	22.80	25.60	5.0	28	1.0	220	0.05	17	+0.08	+0.1
BZV55C27	25.10	28.90	5.0	30	1.0	250	0.05	19	+0.08	+0.1
BZV55C30	28.00	32.00	5.0	35	1.0	250	0.05	21	+0.08	+0.1
BZV55C33	31.00	35.00	5.0	40	1.0	250	0.05	23	+0.08	+0.1
BZV55C36	34.00	38.00	5.0	40	1.0	250	0.05	25	+0.08	+0.1
BZV55C39	37.00	41.00	5.0	50	1.0	300	0.05	27	+0.1	+0.12
BZV55C43	40.00	46.00	5.0	60	1.0	700	0.05	30	+0.1	+0.12
BZV55C47	44.00	50.00	5.0	70	1.0	750	0.05	33	+0.1	+0.12
BZV55C51	48.00	54.00	5.0	70	1.0	750	0.05	36	+0.1	+0.12
BZV55C56	52.00	60.00	2.5	135	1.0	1000	0.05	39	+0.1	+0.1
BZV55C62	58.00	66.00	2.5	150	1.0	1000	0.05	43	+0.1	+0.1
BZV55C68	64.00	72.00	2.5	200	1.0	1000	0.05	48	+0.1	+0.1
BZV55C75	70.00	79.00	2.5	250	1.0	1000	0.05	53	+0.1	+0.1

C:5% B:2% A:1%

RATINGS AND CHARACTERISTIC CURVES BZV55C2V4 THRU BZV55C75

FIG 1. TOTAL POWER DISSIPATION VS. AMBIENT TEMPERATURE

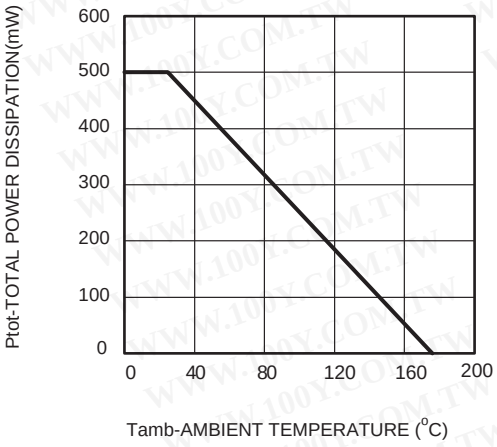


FIG 2. TYPICAL CHANGE OF WORKING VOLTAGE UNDER OPERATINCINDITIONS AT Tamb=25°C

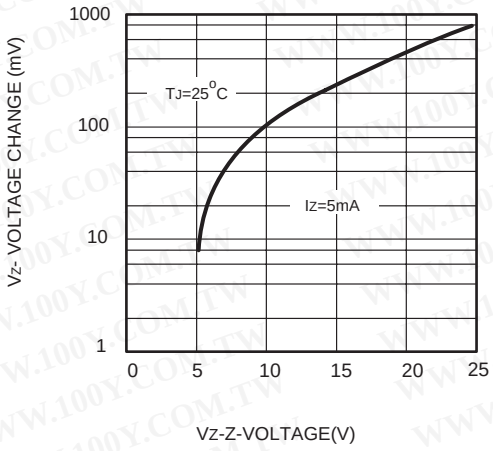


FIG 3. TEMPERATURE COEFFICIENT OF VZ VS. Z-VOLTAGE

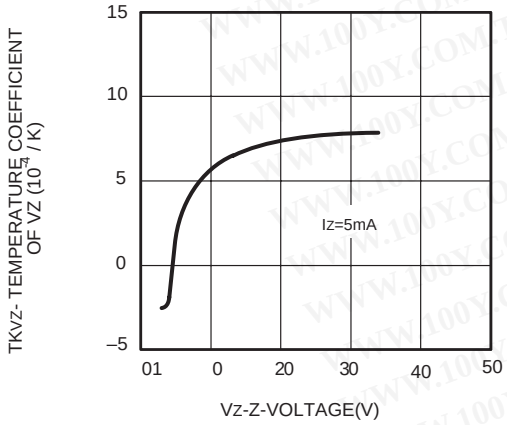


FIG 4. DIODE CAPACITANCE VS. Z-VOLTAGE

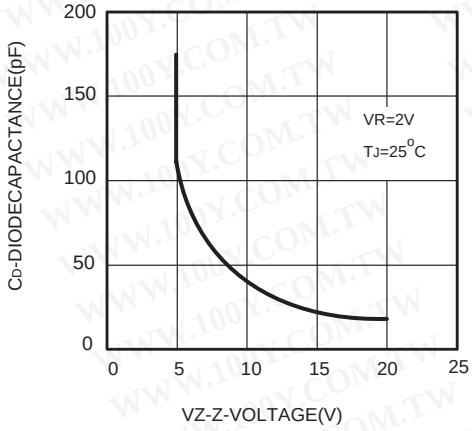


FIG 5. TYPICAL CHANGE OF WORKING VOLTAGE VS. JUNCTION TEMPERATURE

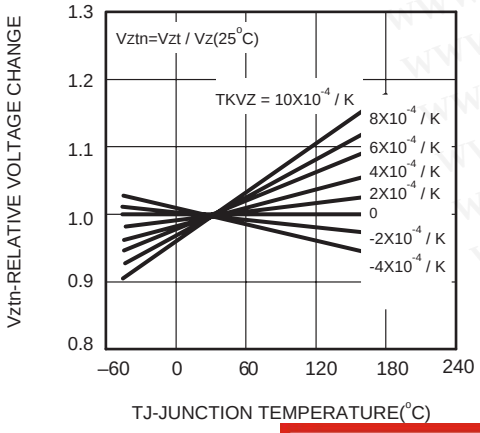
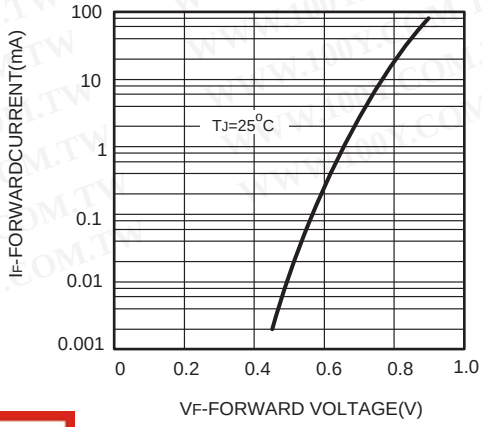


FIG 6. FORWARD CURRENT VS. FORWARD VOLTAGE



RATINGS AND CHARACTERISTIC CURVES BZV55CCV4 THRU BZV55C75

FIG 7. Z-CURRENT VS. VOLTAGE

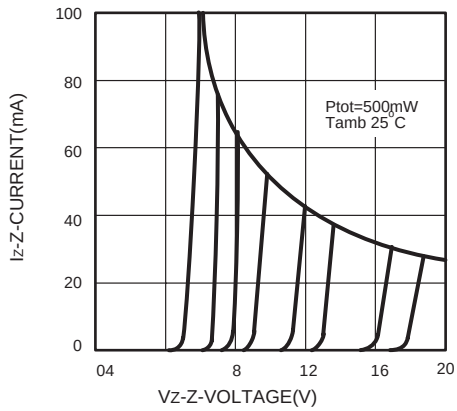


FIG 8. Z-CURRENT VS. VOLTAGE

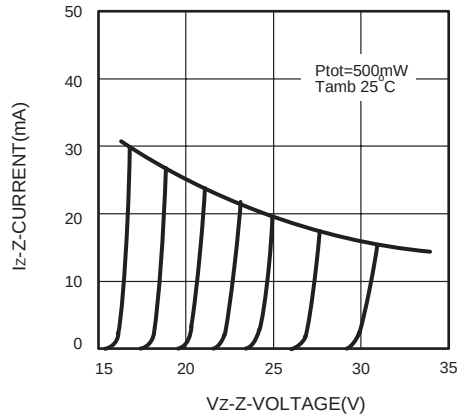


FIG 9. DIFFERENTIAL Z-RESISTANCE VS. Z- VOLTAGE

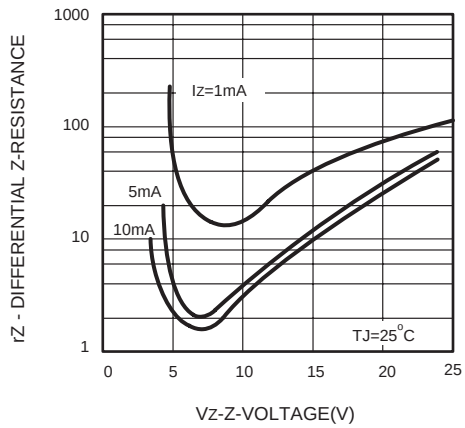
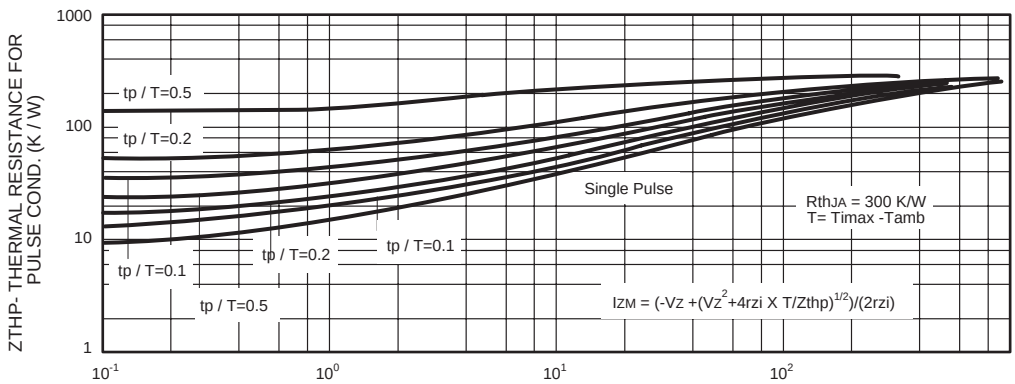


FIG 10. THERMAL RESPONSE



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