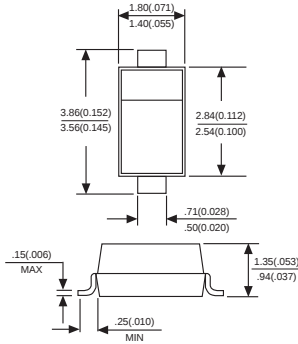


BZT52C2V4-BZT52C75

ZENER DIODE

SOD-123



Dimensions in millimeters and (inches)

FEATURES

- ◆ Low Zener Impedance
- ◆ Power Dissipation of 500mW
- ◆ High Stability and High Reliability

MECHANICAL DATA

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Maximum ratings (Tamb=25°C unless otherwise specified)

PARAMETER	SYMBOLS	Value	UNITS
Forward Voltage @IF=10mA	V _F	0.9	V
Power dissipation (Note1)	P _d	500	mW
Operating and storage temperature range	T _{STG}	-65 to +150	°C

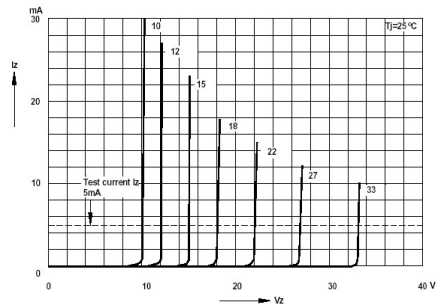
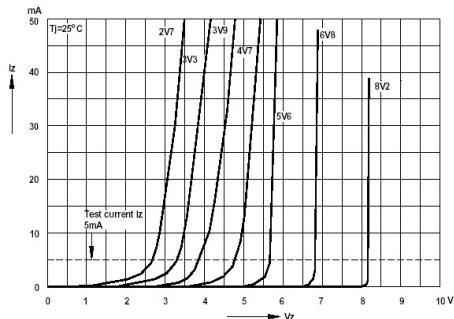
Note 1: Valid provided that leads at a distance of 10mm from case are kept at ambient temperature

ELECTRICAL CHARACTERISTICS (@ TA=25°C unless otherwise specified)

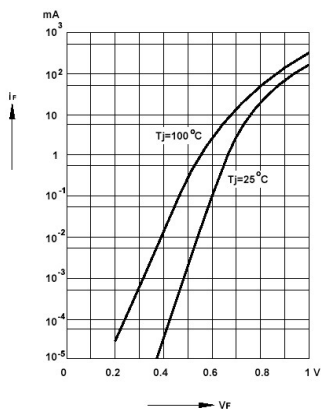
Device	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient @ IZTC=mV/°C		Test Current IZTC
	Vz@Izt			Izt	Zzt @Izt	Zzk @Izk	Izk	IR	VR	Min	Max	mA
	Nom(V)	Min(V)	Max(V)	mA	Ω		mA	uA	V			
BZT52C2V0	2.0	1.90	2.10	5	150	600	1.0	100	1.0	-3.5	0	5
BZT52C2V4	2.4	2.28	2.52	5	100	600	1.0	50	1.0	-3.5	0	5
BZT52C2V7	2.7	2.57	2.84	5	100	600	1.0	20	1.0	-3.5	0	5
BZT52C3V0	3.0	2.85	3.15	5	95	600	1.0	10	1.0	-3.5	0	5
BZT52C3V3	3.3	3.14	3.47	5	95	600	1.0	5	1.0	-3.5	0	5
BZT52C3V6	3.6	3.42	3.78	5	90	600	1.0	5	1.0	-3.5	0	5
BZT52C3V9	3.9	3.71	4.10	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V3	4.3	4.09	4.52	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V7	4.7	4.47	4.94	5	80	500	1.0	3	2.0	-3.5	0.2	5
BZT52C5V1	5.1	4.85	5.36	5	60	480	1.0	2	2.0	-2.7	1.2	5
BZT52C5V6	5.6	5.32	5.88	5	40	400	1.0	1	2.0	-2.0	2.5	5
BZT52C6V2	6.2	5.89	6.51	5	10	150	1.0	3	4.0	0.4	3.7	5
BZT52C6V8	6.8	6.46	7.14	5	15	80	1.0	2	4.0	1.2	4.5	5
BZT52C7V5	7.5	7.13	7.88	5	15	80	1.0	1	5.0	2.5	5.3	5
BZT52C8V2	8.2	7.79	8.61	5	15	80	1.0	0.7	5.0	3.2	6.2	5
BZT52C9V1	9.1	8.65	9.56	5	15	100	1.0	0.5	6.0	3.8	7.0	5
BZT52C10	10	9.50	10.50	5	20	150	1.0	0.2	7.0	4.5	8.0	5
BZT52C11	11	10.45	11.55	5	20	150	1.0	0.1	8.0	5.4	9.0	5
BZT52C12	12	11.40	12.60	5	25	150	1.0	0.1	8.0	6.0	10.0	5
BZT52C13	13	12.35	13.65	5	30	170	1.0	0.1	8.0	7.0	11.0	5
BZT52C15	15	14.25	15.75	5	30	200	1.0	0.1	10.5	9.2	13.0	5
BZT52C16	16	15.20	16.80	5	40	200	1.0	0.1	11.2	10.4	14.0	5
BZT52C18	18	17.10	18.90	5	45	225	1.0	0.1	12.6	12.4	16.0	5
BZT52C20	20	19.00	21.00	5	55	225	1.0	0.1	14.0	14.4	18.0	5
BZT52C22	22	20.90	23.10	5	55	250	1.0	0.1	15.4	16.4	20.0	5
BZT52C24	24	22.80	25.20	5	70	250	1.0	0.1	16.8	18.4	22.0	5
BZT52C27	27	25.65	28.35	2	80	300	0.5	0.1	18.9	21.4	25.3	2
BZT52C30	30	28.50	31.50	2	80	300	0.5	0.1	21.0	24.4	29.4	2
BZT52C33	33	31.35	34.65	2	80	325	0.5	0.1	23.1	27.4	33.4	2
BZT52C36	36	34.20	37.80	2	90	350	0.5	0.1	25.2	30.4	37.4	2
BZT52C39	39	37.05	40.95	2	130	350	0.5	0.1	27.3	33.4	41.2	2
BZT52C43	43	40.85	45.15	2	100	700	1.0	0.1	32.0	10.0	12.0	5
BZT52C47	47	44.65	49.35	2	100	750	1.0	0.1	35.0	10.0	12.0	5
BZT52C51	51	48.45	53.55	2	100	750	1.0	0.1	38.0	10.0	12.0	5
BZT52C56	56	53.20	58.80	2	135	700	1.0	0.1	39.0	10.0	12.0	5
BZT52C62	62	58.9	65.1	2	200	1000	1.0	0.2	47.0	10.0	12.0	5
BZT52C68	68	64.6	71.4	2	250	1000	1.0	0.2	52.0	10.0	12.0	5
BZT52C75	75	71.25	78.75	2	300	1000	1.0	0.2	57.0	10.0	12.0	5

ELECTRICAL CHARACTERISTICS (at $T_A=25^\circ\text{C}$ unless otherwise noted)

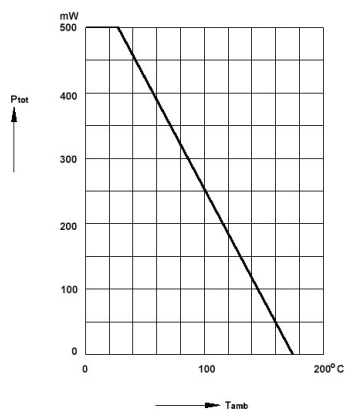
Breakdown characteristics at $T_J=\text{constant}$ (pulsed)



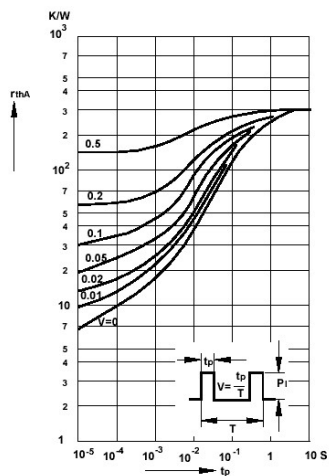
Forward characteristics



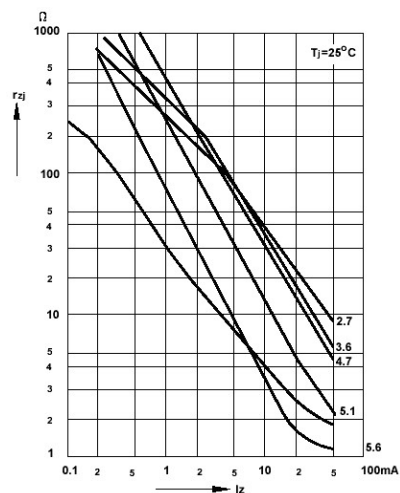
Admissible power dissipation versus ambient temperature



Pulse thermal resistance versus pulse duration



Dynamic resistance versus Zener current

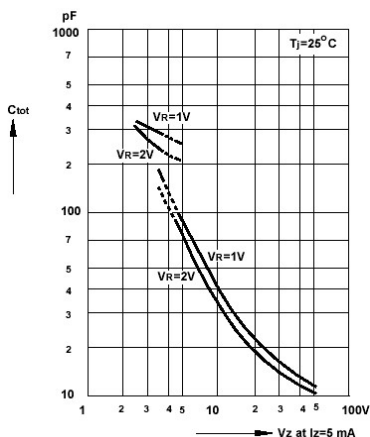


Capacitance versus Zener voltage

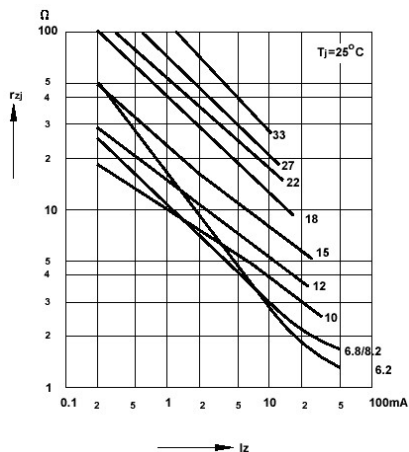
Dynamic resistance versus Zener current

ELECTRICAL CHARACTERISTICS (at $T_A=25^\circ\text{C}$ unless otherwise noted)

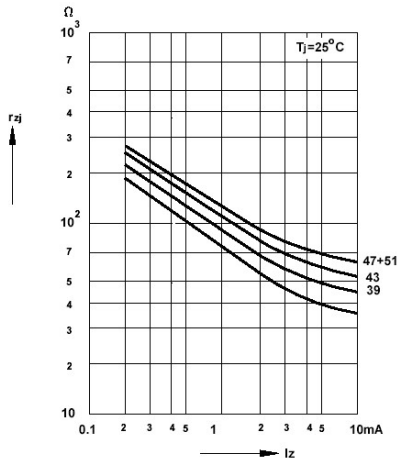
Capacitance versus Zener voltage



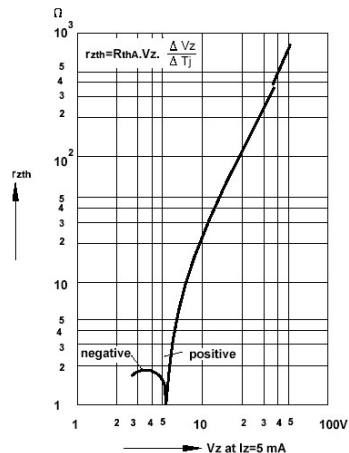
Dynamic resistance versus Zener current



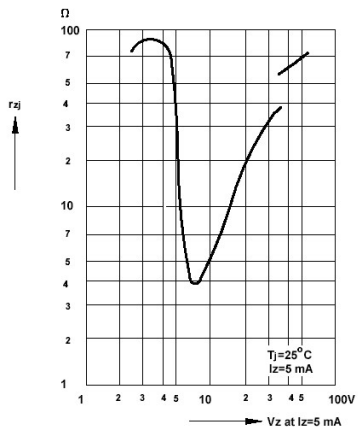
Dynamic resistance versus Zener current



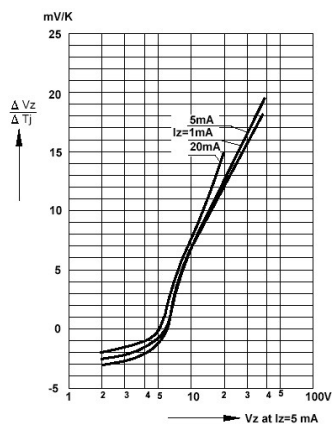
Thermal differential resistance versus Zener voltage



Dynamic resistance versus Zener voltage

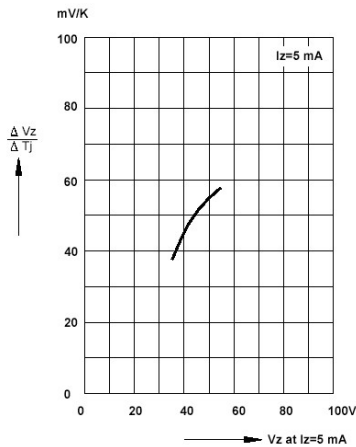


Temperature dependence of Zener voltage versus Zener voltage

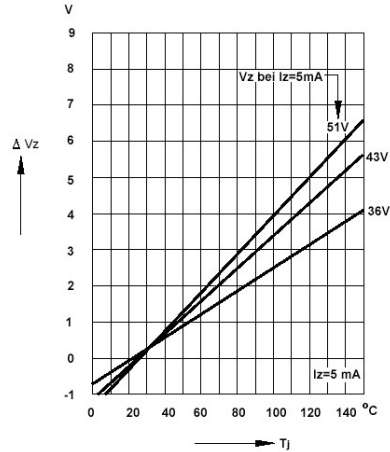


ELECTRICAL CHARACTERISTICS (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

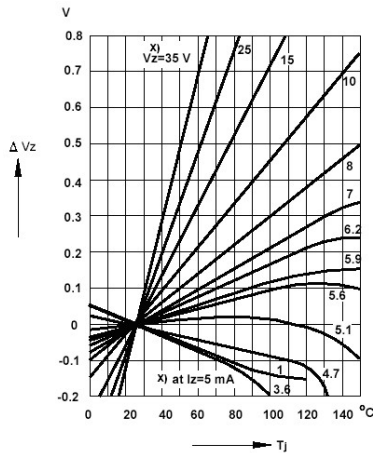
Temperature dependence of Zener voltage versus Zener voltage



Change of Zener voltage versus junction temperature



Change of Zener voltage versus junction temperature



Change of Zener voltage from turn-on up to the point of thermal equilibrium versus Zener voltage

