

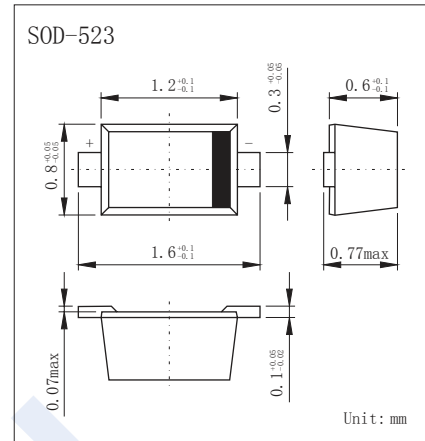
Zener Diodes

BZT52C2V0T ~ BZT52C75T

(KZT52C2V0T ~ KZT52C75T)

■ Features

- Wide Zener Voltage Range Selection, 2.0V to 75V
- Surface Device Type Mounting
- Band Indicates Cathode
- Green EMC



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Power Dissipation	P_d	200	mW
Junction Temperature	T_J	150	°C
Operating Temperature Range	T_{opr}	-55 to 150	
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Device Type	Device Marking	$V_Z @ I_{ZT}$ (Volts)			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK} @ I_{ZK}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
		Min	Nom	Max						
BZT52C2V0T	5+	1.90	2.0	2.10	5	100	1	564	120	0.5
BZT52C2V2T	5L	2.09	2.2	2.31	5	100	1	564	120	0.7
BZT52C2V4T	50	2.2	2.4	2.6	5	100	1	1000	50	1
BZT52C2V7T	51	2.5	2.7	2.9	5	100	1	1000	20	1
BZT52C3V0T	52	2.8	3.0	3.2	5	100	1	1000	10	1
BZT52C3V3T	53	3.1	3.3	3.5	5	95	1	1000	5	1
BZT52C3V6T	54	3.4	3.6	3.8	5	90	1	1000	5	1
BZT52C3V9T	55	3.7	3.9	4.1	5	90	1	1000	3	1
BZT52C4V3T	56	4.0	4.3	4.6	5	90	1	1000	3	1
BZT52C4V7T	57	4.4	4.7	5.0	5	80	1	800	3	2
BZT52C5V1T	58	4.8	5.1	5.4	5	60	1	500	2	2
BZT52C5V6T	59	5.2	5.6	6.0	5	40	1	200	1	2
BZT52C6V2T	5A	5.8	6.2	6.6	5	10	1	100	3	4
BZT52C6V8T	5B	6.4	6.8	7.2	5	15	1	160	2	4
BZT52C7V5T	5C	7.0	7.5	7.9	5	15	1	160	1	5
BZT52C8V2T	5D	7.7	8.2	8.7	5	15	1	160	0.7	5
BZT52C9V1T	5E	8.5	9.1	9.6	5	15	1	160	0.2	7
BZT52C10T	5F	9.4	10	10.6	5	20	1	160	0.1	8
BZT52C11T	5G	10.4	11	11.6	5	20	1	160	0.1	8
BZT52C12T	5H	11.4	12	12.7	5	25	1	80	0.1	8
BZT52C13T	5J	12.4	13	14.1	5	30	1	80	0.1	8
BZT52C15T	5K	14.3	15	15.8	5	30	1	80	0.05	10.5
BZT52C16T	5L	15.3	16	17.1	5	40	1	80	0.05	11.2

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Device Type	Device Marking	$V_Z @ I_{ZT}$ (Volts)			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK} @ I_{ZK}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
		Min	Nom	Max						
BZT52C18T	5M	16.8	18	19.1	5	45	1	80	0.05	12.6
BZT52C20T	5N	18.8	20	21.2	5	55	1	100	0.05	14
BZT52C22T	5P	20.8	22	23.3	5	55	1	100	0.05	15.4
BZT52C24T	5R	22.8	24	25.6	5	70	1	120	0.05	16.8
BZT52C27T	5S	25.1	27	28.9	2	80	0.5	300	0.05	18.9
BZT52C30T	5T	28	30	32	2	80	0.5	300	0.05	21
BZT52C33T	5U	31	33	35	2	80	0.5	300	0.05	23.2
BZT52C36T	5V	34	36	38	2	90	0.5	500	0.05	25.2
BZT52C39T	5X	37	39	41	2	130	0.5	500	0.05	27.3
BZT52C43T	5Y	40	43	46	2	150	0.5	500	0.05	30.1
BZT52C47T	5Z	44	47	50	2	170	0.5	500	0.05	32.9
BZT52C51T	5-	48	51	54	2	180	0.5	500	0.05	35.7
BZT52C56T	5=	52	56	60	2	200	0.5	500	0.05	39.2
BZT52C62T	5≡	58	62	66	2	215	0.5	500	0.05	43.4
BZT52C68T	5>	64	68	72	2	240	0.5	500	0.05	47.6
BZT52C75T	5<	70	75	79	2	255	0.5	500	0.05	52.5

V_F Forward Voltage = 1 V Maximum @ $I_F = 10$ mA for all types

Notes:

1. The Zener Voltage (V_Z) is tested under pulse condition of 10ms.
2. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.
3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK} .

■ Typical Characteristics

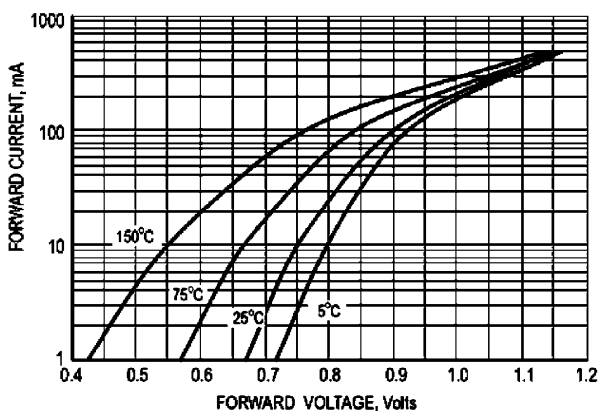


Fig.1 TYPICAL FORWARD VOLTAGE

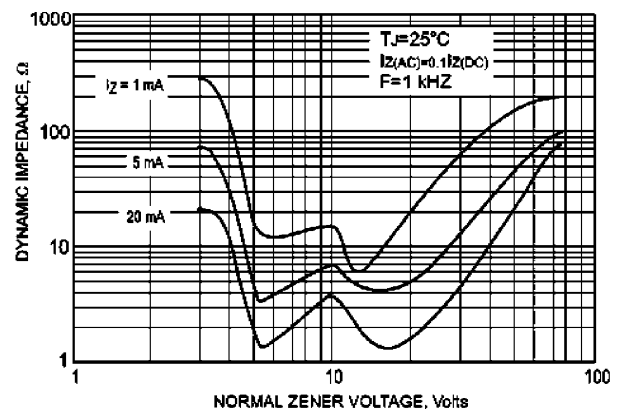


Fig.2 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

Zener Diodes

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■ Typical Characteristics

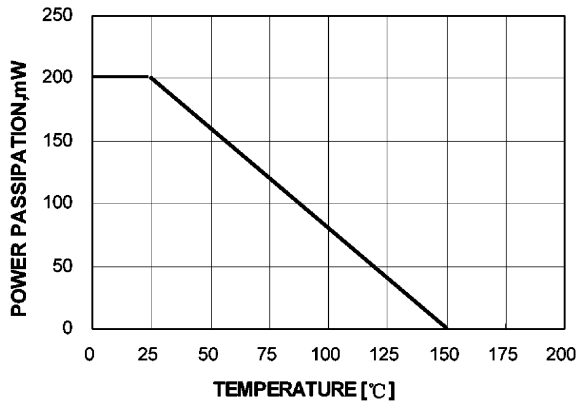


Fig.3 POWER DISSIPATION VS. AMBIENT TEMP.

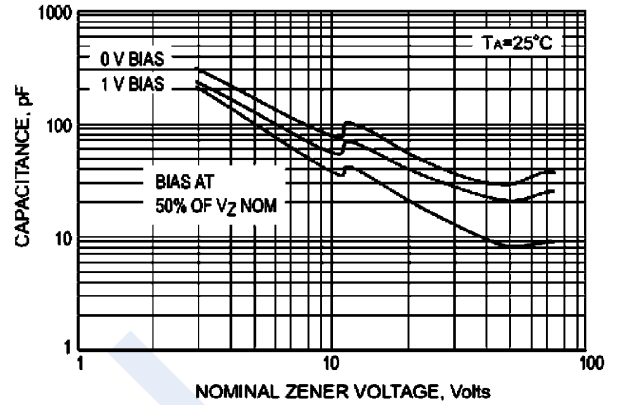


Fig.4 TYPICAL CAPACITANCE

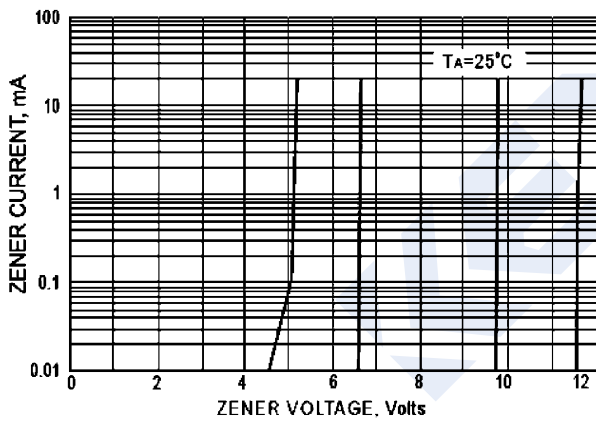


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

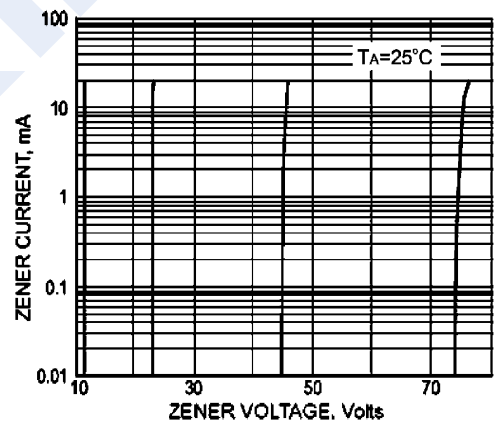


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

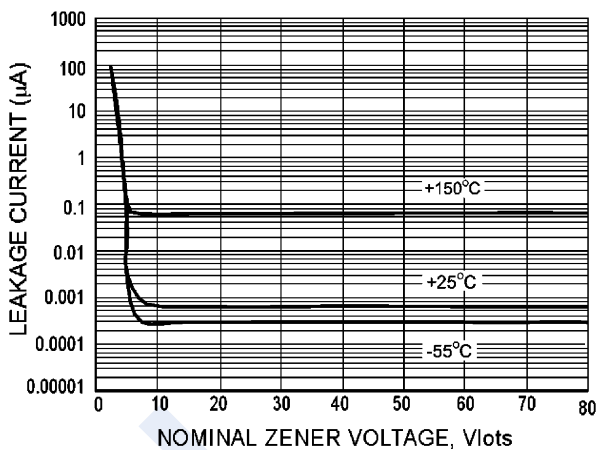


Fig.7 TYPICAL LEAKGE CURRENT