

TENTATIVE

TOSHIBA ZENER DIODE SILICON DIFFUSE TYPE

1ZC12~1ZC120

CONSTANT VOLTAGE REGULATION

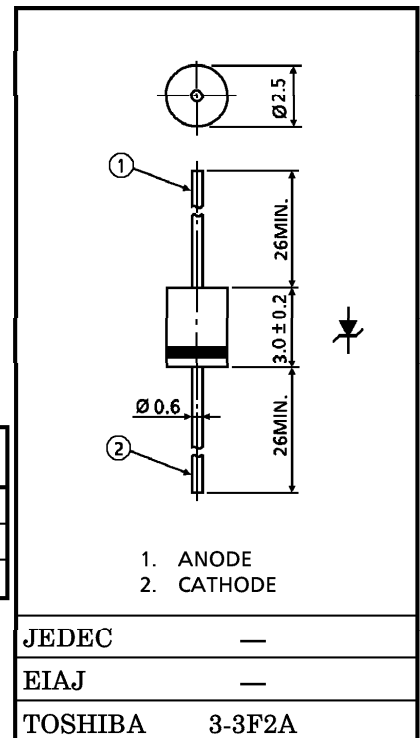
TELEPHONE, PRINTER USES

- Average Power Dissipation : $P = 1.0 \text{ W}$
- Zener Voltage : $V_Z = 12 \sim 120 \text{ V}$
- Tolerance of Zener Voltage (V_Z) : $\pm 10\%$
- Plastic Mold Package

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

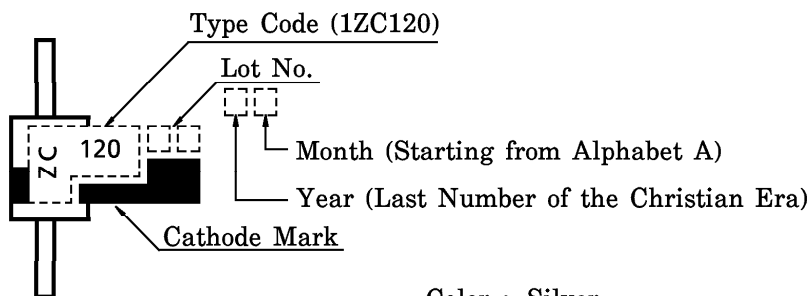
CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Dissipation	P	1.0	W
Junction Temperature	T_j	-40~150	°C
Storage Temperature Range	T_{stg}	-40~150	°C

Unit in mm



Weight : 0.18 g (Typ.)

MARKING



961001EAA2

- TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

TYPE	ZENER CHARACTERISTICS					TEMPERATURE COEFFICIENT OF ZENER VOLTAGE α_T (mV/°C)		FORWARD VOLTAGE		REVERSE CURRENT	
	ZENER VOLTAGE V_Z (V)			ZENER IMPEDANCE r_d (Ω)	MEASUREMENT CURRENT I_Z (mA)	TYP.	MAX.	V_F (V)	MEASUREMENT CURRENT I_F (A)	I_R (μ A)	MEASUREMENT VOLTAGE V_R (V)
	MIN.	TYP.	MAX.	MAX.	MAX.						
1ZC12	10.8	12	13.2	30	10	8	13	1.2	0.2	10	8.0
1ZC13	11.7	13	14.3	30	10	9	14	1.2	0.2	10	9.0
1ZC15	13.5	15	16.5	30	10	11	17	1.2	0.2	10	10.0
1ZC16	14.4	16	17.6	30	10	12	19	1.2	0.2	10	11.0
1ZC18	16.2	18	19.8	30	10	14	23	1.2	0.2	10	13.0
1ZC20	18.0	20	22.0	30	10	16	26	1.2	0.2	10	14.0
1ZC22	19.8	22	24.2	30	10	18	28	1.2	0.2	10	16.0
1ZC24	21.6	24	26.4	30	10	20	32	1.2	0.2	10	17.0
1ZC27	24.3	27	29.7	30	10	23	36	1.2	0.2	10	19.0
1ZC30	27.0	30	33.0	30	10	25	40	1.2	0.2	10	21.0
1ZC33	29.7	33	36.3	30	10	26	41	1.2	0.2	10	26.4
1ZC36	32.4	36	39.6	30	9	28	45	1.2	0.2	10	28.8
1ZC39	35.1	39	42.9	35	8	30	48	1.2	0.2	10	31.2
1ZC43	38.7	43	47.3	40	7	33	53	1.2	0.2	10	34.4
1ZC47	42.3	47	51.7	65	6	38	60	1.2	0.2	10	37.6
1ZC51	45.9	51	56.1	65	6	43	68	1.2	0.2	10	40.8
1ZC56	50.4	56	61.6	85	5	48	77	1.2	0.2	10	44.8
1ZC62	55.8	62	68.2	105	5	53	85	1.2	0.2	10	49.6
1ZC68	61.2	68	74.8	120	4	57	90	1.2	0.2	10	54.4
1ZC75	67.5	75	82.5	150	4	66	104	1.2	0.2	10	60.0
1ZC82	73.8	82	90.2	170	3	71	113	1.2	0.2	10	65.4
1ZC91	81.9	91	100.1	240	3	79	127	1.2	0.2	10	72.8
1ZC100	90.0	100	110.0	300	3	87	138	1.2	0.2	10	80.0
1ZC110	99.0	110	121.0	300	3	96	152	1.2	0.2	10	88.0
1ZC120	108.0	120	132.0	350	2.5	106	171	1.2	0.2	10	96.0

