

TOSHIBA ZENER DIODE SILICON DIFFUSED TYPE

# 1ZC12A~1ZC120A

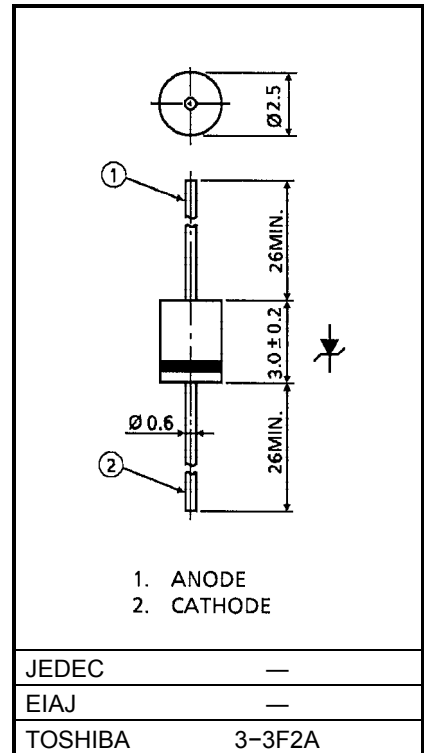
CONSTANT VOLTAGE REGULATION  
TELEPHONE, PRINTER USES

- Average Power Dissipation : P=1.0W
- Zener Voltage :  $V_Z=12\sim 120V$
- Tolerance of Zener Voltage ( $V_Z$ ) :  $\pm 5\%$
- Plastic Mold Package

### MAXIMUM RATINGS ( $T_a=25^\circ C$ )

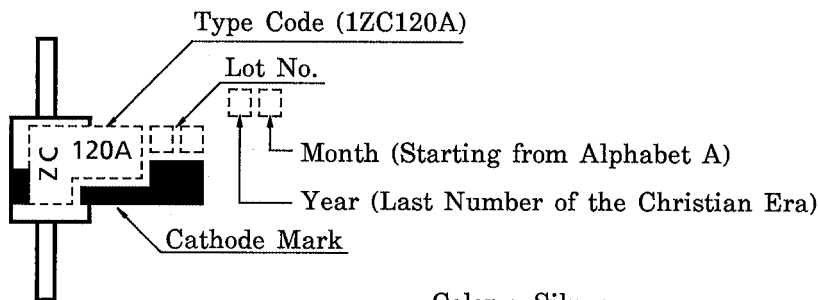
CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Dissipation	P	1.0	W
Junction Temperature	$T_j$	-40~150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-40~150	$^\circ C$

Unit: mm



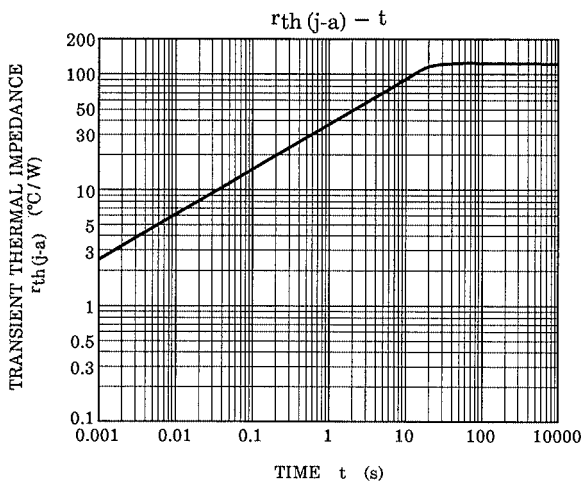
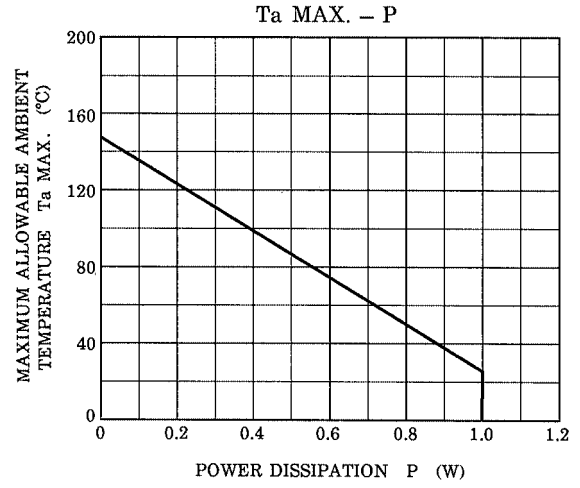
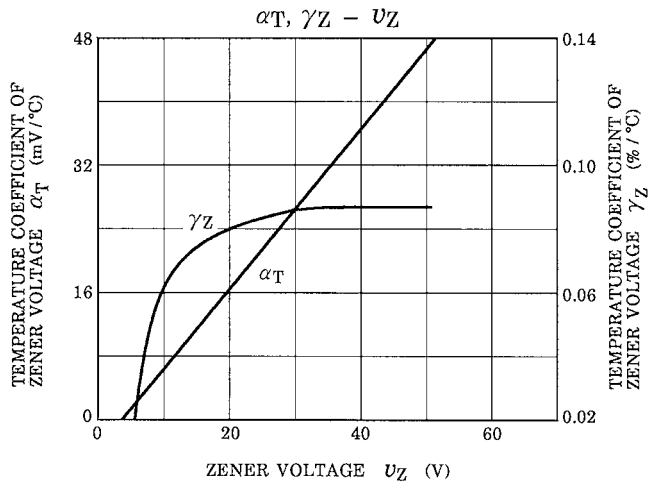
Weight: 0.18g (Typ.)

### MARK



## ELECTRICAL CHARACTERISTICS (Ta=25°C)

TYPE	ZENER CHARACTERISTICS					TEMPERATURE COEFFICIENT OF ZENER VOLTAGE $\alpha_T$ (mV / °C)		FORWARD VOLTAGE		REVERSE CURRENT	
	ZENER VOLTAGE $V_Z$ (V)			ZENER IMPEDANCE $r_d$ ( $\Omega$ ) MAX.	MEASUREMENT CURRENT $I_Z$ (mA)			$V_F$ (V) MAX.	MEASUREMENT CURRENT $I_F$ (A)	$I_R$ ( $\mu$ A) MAX.	MEASUREMENT VOLTAGE $V_R$ (V)
	MIN.	TYP.	MAX.			TYP.	MAX.				
1ZC12A	11.4	12	12.6	30	10	8	13	1.2	0.2	10	8.0
1ZC13A	12.4	13	13.6	30	10	9	14	1.2	0.2	10	9.0
1ZC15A	14.3	15	15.8	30	10	11	17	1.2	0.2	10	10.0
1ZC16A	15.2	16	16.8	30	10	12	19	1.2	0.2	10	11.0
1ZC18A	17.1	18	18.9	30	10	14	23	1.2	0.2	10	13.0
1ZC20A	19.0	20	21.0	30	10	16	26	1.2	0.2	10	14.0
1ZC22A	20.9	22	23.1	30	10	18	28	1.2	0.2	10	16.0
1ZC24A	22.8	24	25.2	30	10	20	32	1.2	0.2	10	17.0
1ZC27A	25.7	27	28.3	30	10	23	36	1.2	0.2	10	19.0
1ZC30A	28.5	30	31.5	30	10	25	40	1.2	0.2	10	21.0
1ZC33A	31.4	33	34.6	30	10	26	41	1.2	0.2	10	26.4
1ZC36A	34.2	36	37.8	30	9	28	45	1.2	0.2	10	28.8
1ZC39A	37.1	39	40.9	35	8	30	48	1.2	0.2	10	31.2
1ZC43A	40.9	43	45.1	40	7	33	53	1.2	0.2	10	34.4
1ZC47A	44.7	47	49.3	65	6	38	60	1.2	0.2	10	37.6
1ZC51A	48.5	51	53.5	65	6	43	68	1.2	0.2	10	40.8
1ZC56A	53.2	56	58.8	85	5	48	77	1.2	0.2	10	44.8
1ZC62A	58.9	62	65.1	105	5	53	85	1.2	0.2	10	49.6
1ZC68A	64.6	68	71.4	120	4	57	90	1.2	0.2	10	54.4
1ZC75A	71.3	75	78.7	150	4	66	104	1.2	0.2	10	60.0
1ZC82A	77.9	82	86.1	170	3	71	113	1.2	0.2	10	65.4
1ZC91A	81.5	91	95.5	240	3	79	127	1.2	0.2	10	72.8
1ZC100A	95.0	100	105.0	300	3	87	138	1.2	0.2	10	80.0
1ZC110A	104.5	110	115.5	300	3	96	152	1.2	0.2	10	88.0
1ZC120A	114.0	120	126.0	350	2.5	106	171	1.2	0.2	10	96.0



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