

TOSHIBA ZENER DIODE SILICON EPITAXIAL TYPE

CRY75~CRZ47

USE IN COMMUNICATION, AUTOMATION AND MEASUREMENT EQUIPMENT

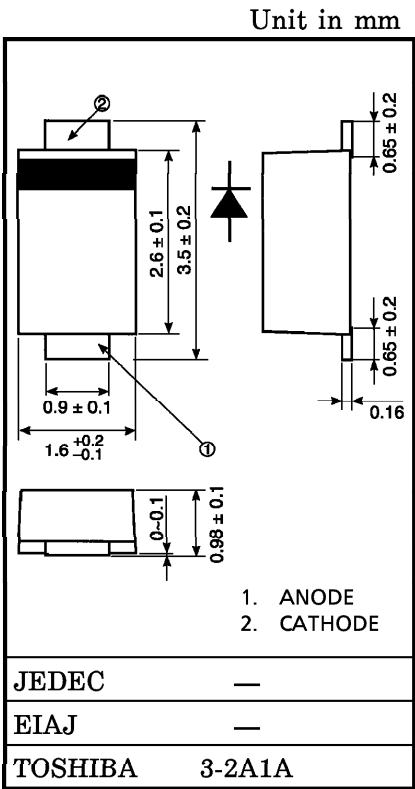
CONSTANT VOLTAGE REGULATION

TRANSIENT SUPPRESSORS

- Average Power Dissipation : $P = 0.7\text{ W}$
- Zener Voltage : $V_Z = 7.5\sim 47\text{ V}$
- Suitable for Compact Assembly Because of Small Surface Mount Package
“S-FLAT™” (Toshiba Designation)

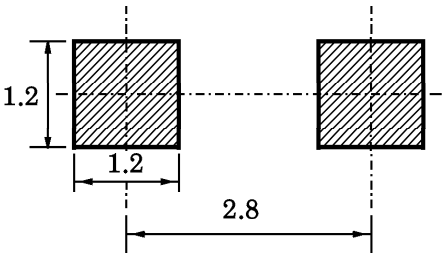
MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Dissipation	P	700	mW
Junction Temperature	T_j	$-40\sim 150$	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-40\sim 150$	$^\circ\text{C}$



STANDARD SOLDERING PAD

Unit : mm

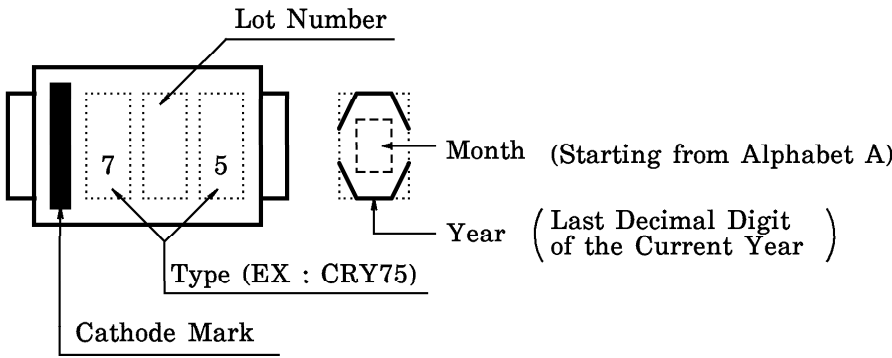


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MARKING

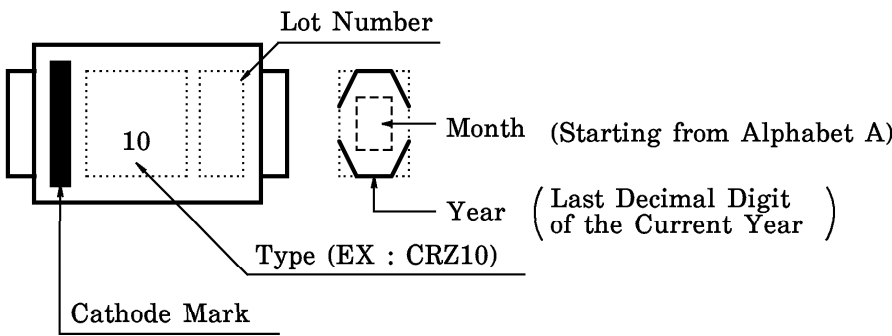
① CRY75~CRY91



FOLLOWING INDICATES
THE DATE OF MANUFACTURE

0	1	2	3	4
5	6	7	8	9

② CRZ10~CRZ47



0	1	2	3	4
5	6	7	8	9

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

TYPE	ZENER VOLTAGE				ZENER IMPEDANCE		TEMPERATURE COEFFICIENT OF ZENER VOLTAGE α_T (mV/°C)		FORWARD VOLTAGE		REVERSE CURRENT	
	V _Z (V)			MEASURE- MENT CURRENT I _Z (mA)	r _d (Ω)	MEASURE- MENT CURRENT I _Z (mA)		V _F (V)	MEASURE- MENT CURRENT I _F (A)	I _R (μA)	MEASURE- MENT VOLTAGE V _R (V)	
	MIN.	TYP.	MAX.									MAX.
CRY75	6.8	7.5	8.3	10	30	10	4	5	1.0	0.2	10	4.5
CRY82	7.4	8.2	9.0	10	30	10	4	6	1.0	0.2	10	4.9
CRY91	8.2	9.1	10.0	10	30	10	5	8	1.0	0.2	10	5.5
CRZ10	9.0	10.0	11.0	10	30	10	6	9	1.0	0.2	10	6.0
CRZ11	9.9	11.0	12.1	10	30	10	7	11	1.0	0.2	10	7.0
CRZ12	10.8	12.0	13.2	10	30	10	8	13	1.0	0.2	10	8.0
CRZ13	11.7	13.0	14.3	10	30	10	9	14	1.0	0.2	10	9.0
CRZ15	13.5	15.0	16.5	10	30	10	11	17	1.0	0.2	10	10.0
CRZ16	14.4	16.0	17.6	10	30	10	12	19	1.0	0.2	10	11.0
CRZ18	16.2	18.0	19.8	10	30	10	14	23	1.0	0.2	10	13.0
CRZ20	18.0	20.0	22.0	10	30	10	16	26	1.0	0.2	10	14.0
CRZ22	19.8	22.0	24.2	10	30	10	18	28	1.0	0.2	10	16.0
CRZ24	21.6	24.0	26.4	10	30	10	20	32	1.0	0.2	10	17.0
CRZ27	24.3	27.0	29.7	10	30	10	23	36	1.0	0.2	10	19.0
CRZ30	27.0	30.0	33.0	10	30	10	25	40	1.0	0.2	10	21.0
CRZ33	29.7	33.0	36.3	10	30	10	26	41	1.0	0.2	10	26.4
CRZ36	32.4	36.0	39.6	9	30	9	28	45	1.0	0.2	10	28.8
CRZ39	35.1	39.0	42.9	8	35	8	30	48	1.0	0.2	10	31.2
CRZ43	38.7	43.0	47.3	7	40	7	33	53	1.0	0.2	10	34.4
CRZ47	42.3	47.0	51.7	6	65	6	38	60	1.0	0.2	10	37.6

