

TENTATIVE

TOSHIBA ZENER DIODE SILICON DIFFUSED TYPE

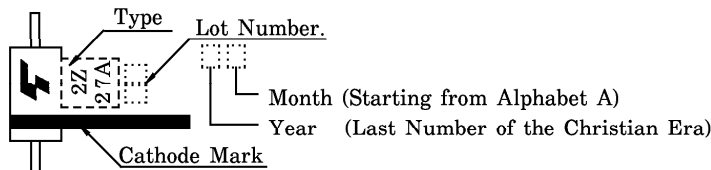
2Z12~2Z51

CONSTANT VOLTAGE REGULATION.

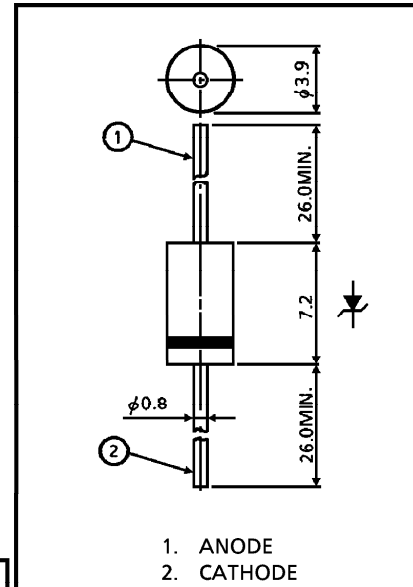
TRANSIENT SUPPRESSORS.

- Average Power Dissipation : $P=1.5W$
- Peak Reverse Power Dissipation : $P_{RSM}=900W$ at $t_{wv}=200\mu s$
- Zener Voltage : $V_Z=12\sim 51V$
- Plastic Mold Package

MARK



Unit in mm



- 1. ANODE
- 2. CATHODE

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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---------------------------|-----------|-----------|------------|
| Power Dissipation | P | 1.5 | W |
| Junction Temperature | T_j | -40 ~ 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -40 ~ 150 | $^\circ C$ |

| | |
|---------|--------|
| JEDEC | — |
| EIAJ | — |
| TOSHIBA | 3-4B1A |

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

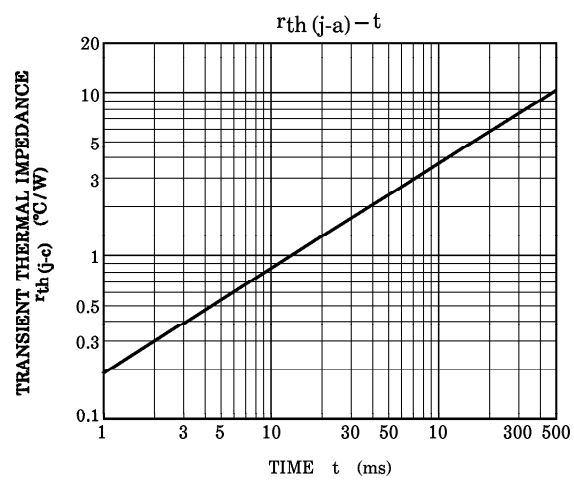
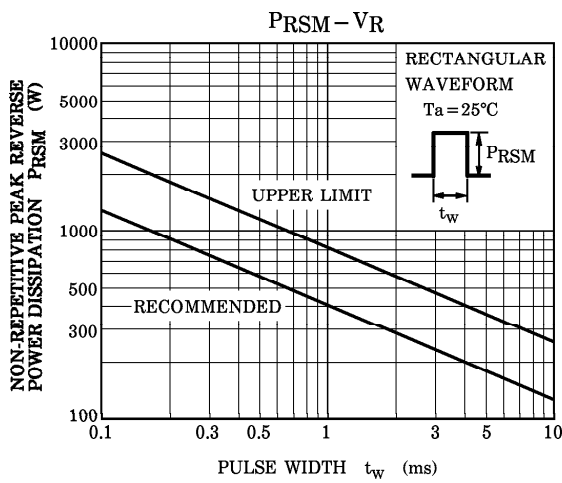
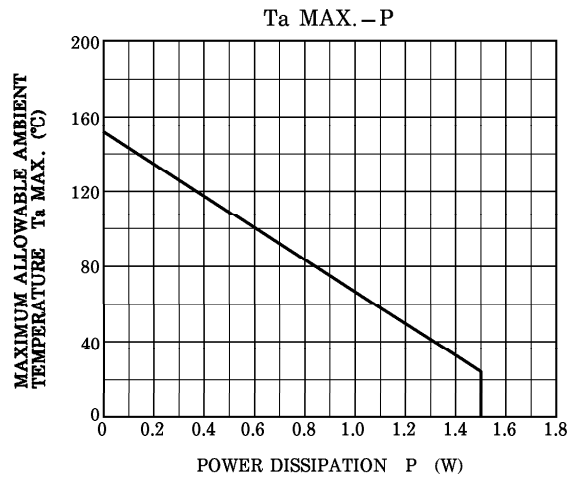
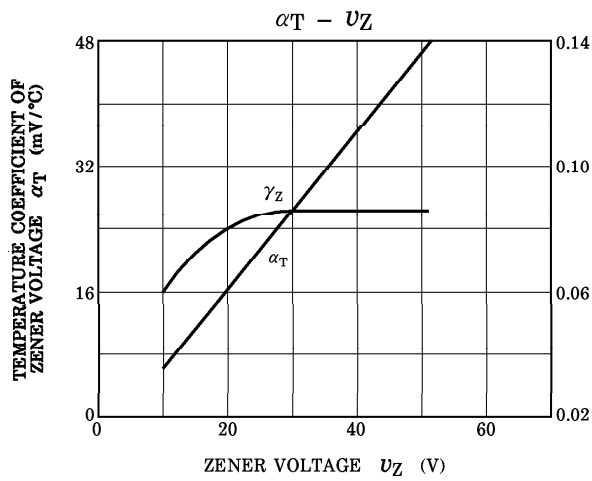
Weight : 0.47g

| TYPE | ZENER CHARACTERISTICS | | | | | TEMPERATURE COEFFICIENT OF ZENER VOLTAGE α_T (mV/ $^\circ C$) | | 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 (μA) | MEASUREMENT VOLTAGE V_R (V) |
| | MIN. | TYP. | MAX. | MAX. | MAX. | | | | | | |
| 2Z12 | 10.8 | 12 | 13.2 | 30 | 10 | 8 | 13 | 1.2 | 0.2 | 5 | 10.2 |
| 2Z13 | 11.7 | 13 | 14.3 | 30 | 10 | 9 | 14 | 1.2 | 0.2 | 5 | 11.1 |
| 2Z15 | 13.5 | 15 | 16.5 | 30 | 10 | 11 | 17 | 1.2 | 0.2 | 5 | 12.8 |
| 2Z16 | 14.4 | 16 | 17.6 | 30 | 10 | 12 | 19 | 1.2 | 0.2 | 5 | 13.6 |
| *2Z16A | 15.2 | 16 | 16.8 | 30 | 10 | 12 | 19 | 1.2 | 0.2 | 5 | 13.6 |
| 2Z18 | 16.2 | 18 | 19.8 | 30 | 10 | 14 | 23 | 1.2 | 0.2 | 5 | 15.3 |
| *2Z18A | 17.1 | 18 | 18.9 | 30 | 10 | 14 | 23 | 1.2 | 0.2 | 5 | 15.3 |
| 2Z20 | 18.0 | 20 | 22.0 | 30 | 10 | 16 | 26 | 1.2 | 0.2 | 5 | 17.1 |
| 2Z22 | 19.8 | 22 | 24.2 | 30 | 10 | 18 | 28 | 1.2 | 0.2 | 5 | 18.8 |
| 2Z24 | 21.6 | 24 | 26.4 | 30 | 10 | 20 | 32 | 1.2 | 0.2 | 5 | 20.5 |
| 2Z27 | 24.3 | 27 | 29.7 | 30 | 10 | 23 | 36 | 1.2 | 0.2 | 5 | 23.1 |
| *2Z27A | 25.7 | 27 | 28.3 | 30 | 10 | 23 | 36 | 1.2 | 0.2 | 5 | 23.1 |
| 2Z30 | 27.0 | 30 | 33.0 | 30 | 10 | 25 | 40 | 1.2 | 0.2 | 5 | 25.6 |
| 2Z33 | 29.7 | 33 | 36.3 | 30 | 10 | 26 | 41 | 1.2 | 0.2 | 5 | 28.2 |
| 2Z36 | 32.4 | 36 | 39.6 | 30 | 9 | 28 | 45 | 1.2 | 0.2 | 5 | 30.8 |
| 2Z43 | 38.7 | 43 | 47.3 | 40 | 7 | 33 | 53 | 1.2 | 0.2 | 5 | 34.4 |
| 2Z47 | 42.3 | 47 | 51.7 | 65 | 6 | 38 | 60 | 1.2 | 0.2 | 5 | 40.2 |
| 2Z51 | 45.9 | 51 | 56.1 | 65 | 6 | 43 | 68 | 1.2 | 0.2 | 5 | 43.6 |

(Note) *Production upon request.

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