

TOSHIBA Zener Diode Silicon Diffused-Junction Type

# U5ZA40C

Best Suited for Overvoltage Protection of Electronic System:

Electronic System for Use in Automobiles

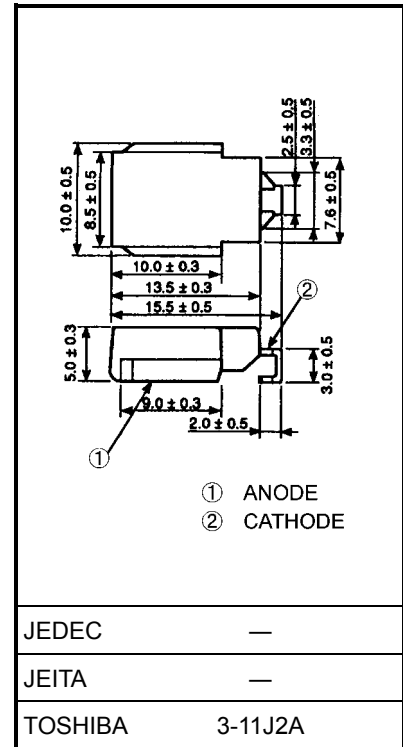
Electronic System for Commercial Use

Electronic System for Industrial Use

For Communications, Controls, Measuring Instruments, etc.

- High surge power withstanding capabilities that absorb load dump surge.
- Excellent surge responsibility for steep surge absorption.
- Surface mount type is available for easy applications.
- Corresponds to taping packages.

Unit: mm



Weight: 2.5 g (typ.)

### Maximum Ratings (Ta = 25°C)

| Characteristics  | Symbol    | Rating  | Unit |
|--|-----------|---------|------|
| Allowable power dissipation (Note1)  | P         | 5       | W    |
| Non-repetitive peak reverse surge current<br>(see figure 1 for the exponents.) | $I_{RSM}$ | 62      | A    |
| Peak one cycle surge forward current<br>(single half sine-wave, t = 10 ms)     | $I_{FSM}$ | 700     | A    |
| Junction temperature   | $T_j$     | -40~150 | °C   |
| Storage temperature  | $T_{stg}$ | -40~150 | °C   |

Note1: Lead tip temperature  $T_L = 25^\circ\text{C}$

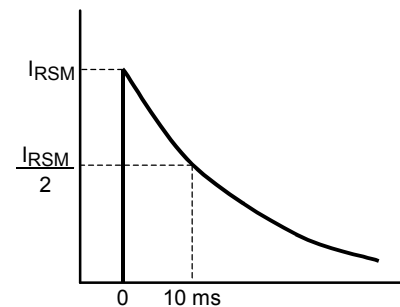
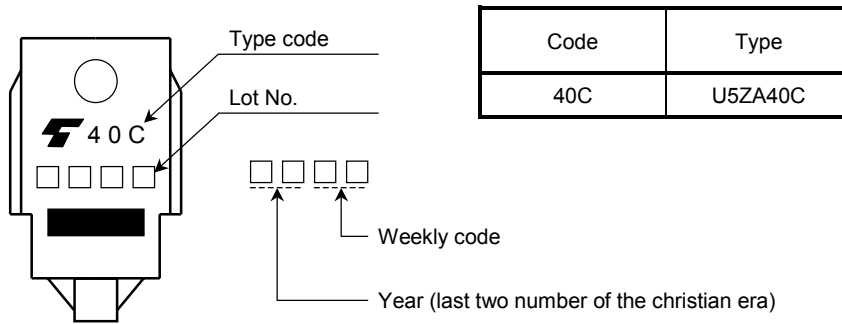


Figure 1

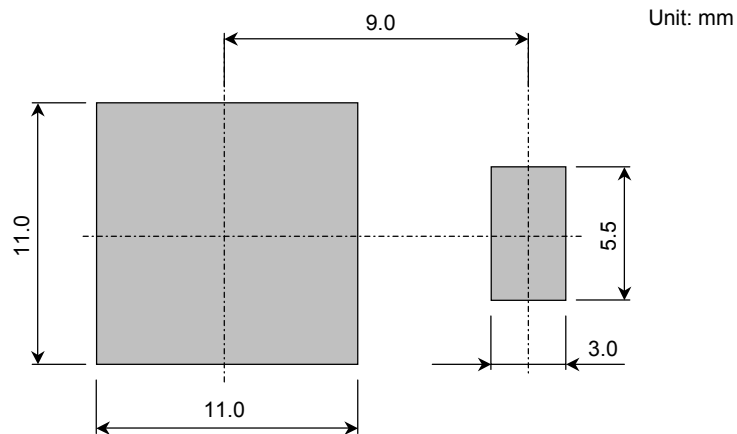
## Electrical Characteristics (Ta = 25°C)

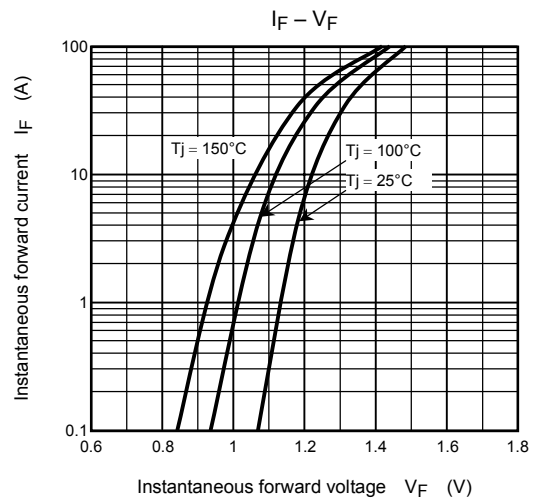
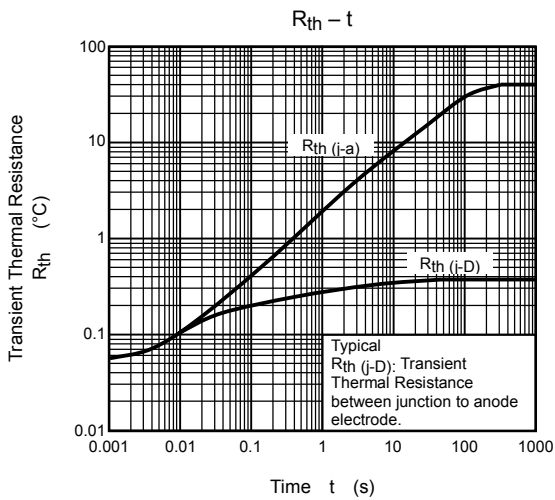
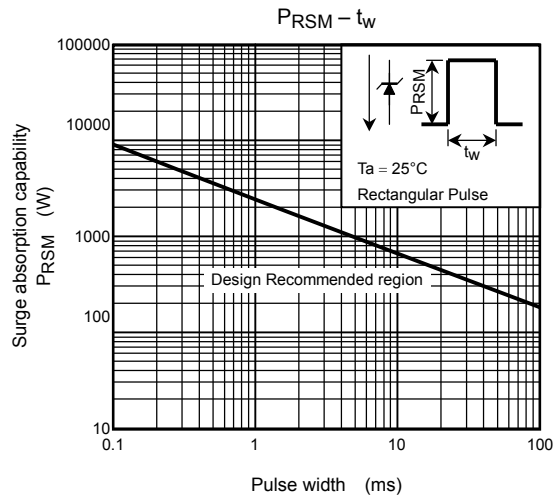
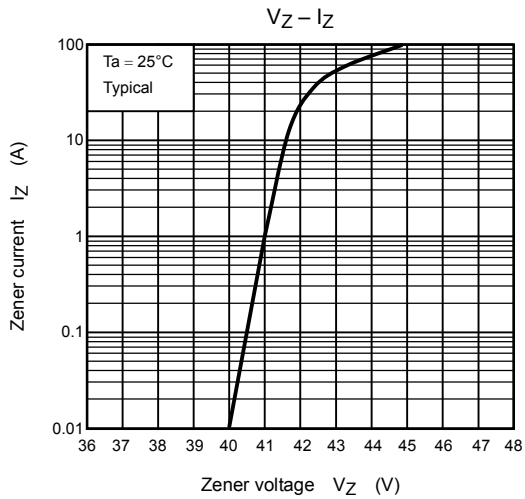
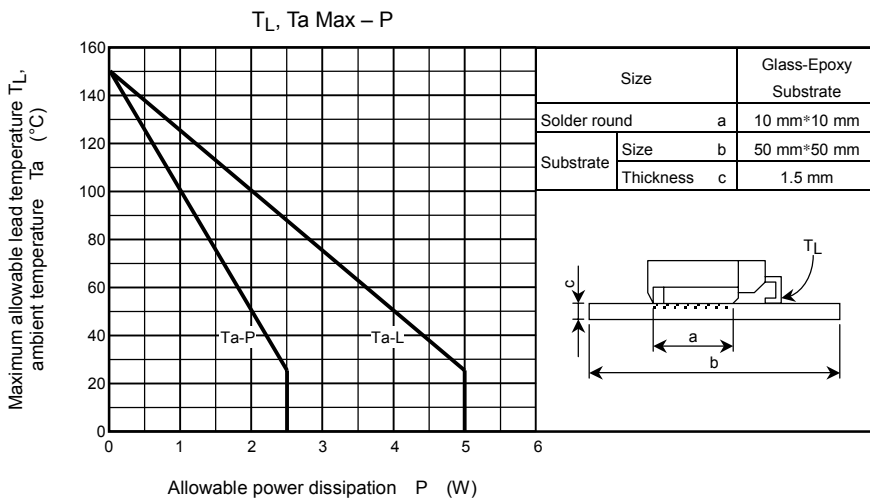
| Type No. | Zener Voltage<br>V <sub>Z</sub> [V]<br>(I <sub>Z</sub> = 10 mA) |      |      | Operating<br>Resistance<br>r <sub>d</sub> [Ω]<br>(I <sub>Z</sub> = 10 mA) | Temperature<br>Coefficient<br>α <sub>T</sub> [mV/°C]<br>(I <sub>Z</sub> = 10 mA) |     | Forward<br>Voltage<br>V <sub>F</sub> [V]<br>(I <sub>F</sub> = 6 A) | Reverse<br>Current<br>I <sub>R</sub> [μA]<br>(V <sub>R</sub> = 32 V) |
|----------|---|------|------|---|--|-----|--|--|
|          | Min   | Typ. | Max  | Max   | Typ.   | Max | Max  | Max  |
| U5ZA40C  | 36.0  | 40.0 | 44.0 | 30  | 31   | 49  | 1.2  | 10   |

## Marking



## Standard Soldering Pad





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000707EAA

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