

# SMD Switching Diode



SMD Diodes Specialist

## CDSU101A (Lead-free Device)

High Speed

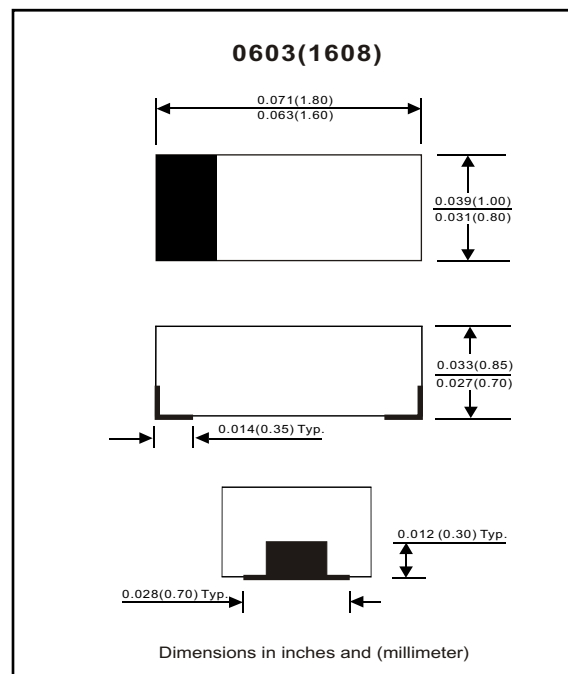


### Features

- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Low leakage current (<50nA).
- High mounting capability, strong surge withstand, high reliability.

### Mechanical data

- Case: 0603(1608) standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750,method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight: 0.003 gram(approx.).



### Maximum Rating (at TA=25°C unless otherwise noted)

| Parameter                       | Conditions                                                             | Symbol           | Min | Typ  | Max  | Unit |
|---------------------------------|------------------------------------------------------------------------|------------------|-----|------|------|------|
| Repetitive peak reverse voltage |                                                                        | V <sub>RRM</sub> |     |      | 90   | V    |
| Reverse voltage                 |                                                                        | V <sub>R</sub>   |     |      | 80   | V    |
| Average forward current         |                                                                        | I <sub>O</sub>   |     |      | 100  | mA   |
| Forward current,surge peak      | 8.3 ms single half sine-wave superimposed on rate load ( JEDEC method) | I <sub>FSM</sub> |     | 1000 |      | mA   |
| Repetitive peak forward current |                                                                        | I <sub>FRM</sub> |     |      | 225  | mA   |
| Power Dissipation               |                                                                        | P <sub>D</sub>   |     |      | 150  | mW   |
| Storage temperature             |                                                                        | T <sub>STG</sub> | -40 |      | +125 | °C   |
| Junction temperature            |                                                                        | T <sub>j</sub>   |     |      | +125 | °C   |

### Electrical Characteristics (at TA=25°C unless otherwise noted)

| Parameter                     | Conditions                                                          | Symbol          | Min | Typ | Max | Unit |
|-------------------------------|---------------------------------------------------------------------|-----------------|-----|-----|-----|------|
| Forward voltage               | I <sub>F</sub> = 100 mA DC                                          | V <sub>F</sub>  |     |     | 1.0 | V    |
| Reverse current               | V <sub>R</sub> = 75 V                                               | I <sub>R</sub>  |     |     | 50  | nA   |
| Capacitance between terminals | f = 1 MHz, and 0.5VDC reverse voltage                               | C <sub>T</sub>  |     | 3   |     | pF   |
| Reverse recovery time         | V <sub>R</sub> = 6V ,I <sub>F</sub> =10 mA, R <sub>L</sub> =50 ohms | T <sub>rr</sub> |     | 4   |     | nS   |

REV:A

## RATING AND CHARACTERISTIC CURVES (CDSU101A)

Fig. 1 - Forward characteristics

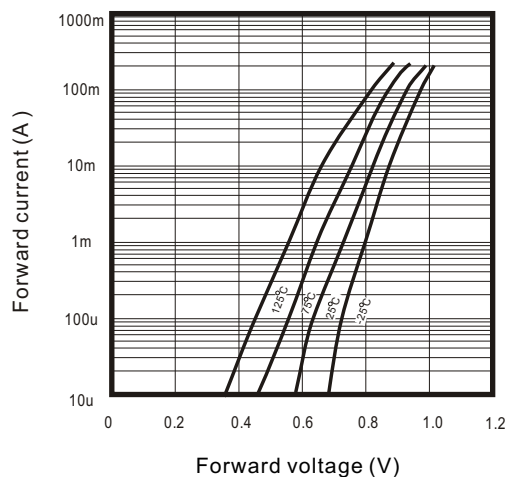


Fig. 2 - Reverse characteristics

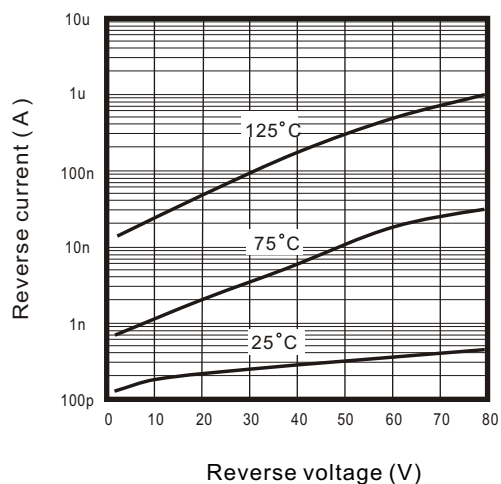


Fig. 3 - Capacitance between terminals characteristics

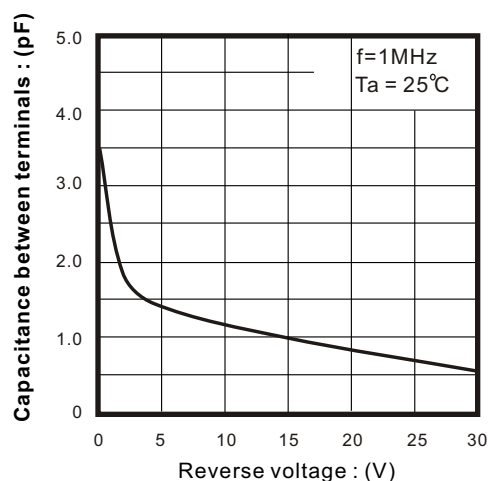


Fig. 4 - Current derating curve

