

# SMD Switching Diode

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## CDSS4148

High Speed



### Features

Designed for mounting on small surface.

High speed switching.

High mounting capability, strong surge withstand, high reliability.

### Mechanical data

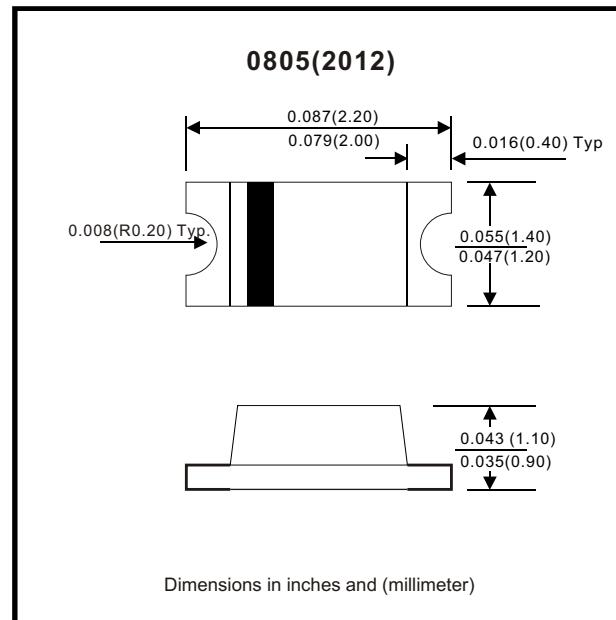
Case: 0805(2012) standard package, molded plastic.

Terminals: Solder plated, solderable per MIL-STD-750, method 2026.

Polarity: Indicated by cathode band.

Mounting position: Any.

Weight: 0.0048 gram. (approximately)



Dimensions in inches and (millimeter)

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

| Parameter                       | Conditions                                  | Symbol           | Min | Typ    | Max  | Unit |
|---------------------------------|---|------------------|-----|--------|------|------|
| Repetitive peak reverse voltage |   | V <sub>RRM</sub> |     |        | 100  | V    |
| Reverse voltage                 |   | V <sub>R</sub>   |     |        | 75   | V    |
| Average forward current         |   | I <sub>o</sub>   |     |        | 150  | mA   |
| Forward current , surge peak    | T <sub>p</sub> = 1us<br>T <sub>p</sub> = 1s | I <sub>FSM</sub> |     | 4<br>1 |      | A    |
| Power Dissipation               |   | P <sub>D</sub>   |     |        | 350  | mW   |
| Storage temperature             |   | T <sub>TG</sub>  | -55 |        | +175 | °C   |
| Junction temperature            |   | T <sub>j</sub>   | -55 |        | +175 | °C   |

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

| Parameter                     | Conditions  | Symbol          | Min | Typ | Max       | Unit     |
|-------------------------------|---|-----------------|-----|-----|-----------|----------|
| Forward voltage               | I <sub>F</sub> = 50 mA DC   | V <sub>F</sub>  |     |     | 1.0       | V        |
| Reverse current               | V <sub>R</sub> = 20 V<br>V <sub>R</sub> = 75 V                        | I <sub>R</sub>  |     |     | 25<br>2.5 | nA<br>uA |
| Capacitance between terminals | f = 1MHz, and 0 VDC 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       |

## RATING AND CHARACTERISTIC CURVES (CDSS4148)

Fig. 1 - Forward characteristics

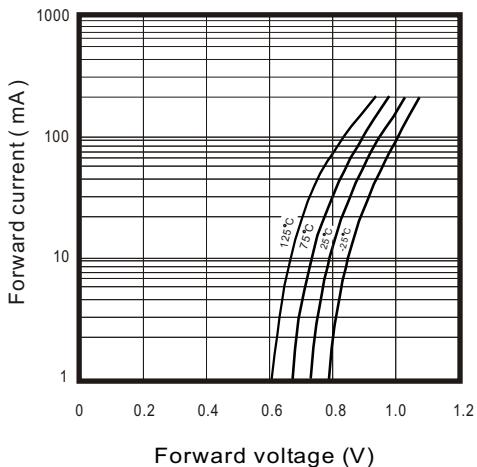


Fig. 2 - Reverse characteristics

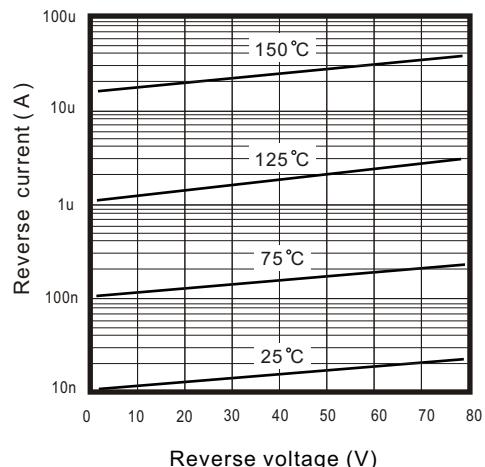


Fig. 3 - Capacitance between terminals characteristics

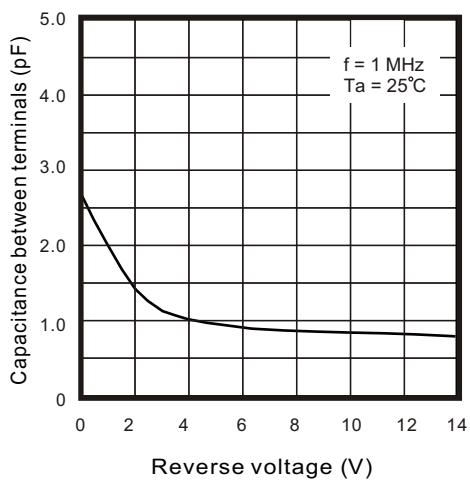


Fig. 4 - Current derating curve

