

## CDSH3-4448/A/C/S-G

Voltage: 80 Volts

Current: 250 mA

RoHS Device

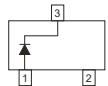
### Features

- Fast switching speed.
- For general purpose switching applications.
- High conductance.

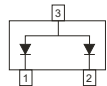
### Mechanical data

- Case: SOT-523, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-202E, method 208C.
- Weight: 0.002 grams approx.

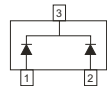
### Circuit Diagram



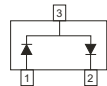
CDSH3-4448-G  
Marking: A3



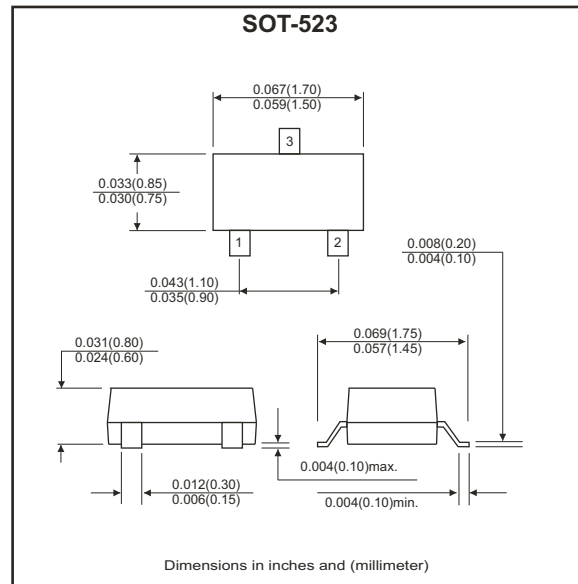
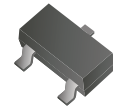
CDSH3-4448A-G  
Marking: A6



CDSH3-4448C-G  
Marking: A7



CDSH3-4448S-G  
Marking: AB



### Maximum Ratings (Single diode, at TA=25°C unless otherwise noted)

| Parameter                               | Symbol                | Value       | Unit |
|---|-----------------------|-------------|------|
| Non-repetitive peak reverse voltage     | $V_{RM}$              | 100         | V    |
| Peak repetitive peak reverse voltage    | $V_{RRM}$             |             |      |
| Working peak reverse voltage            | $V_{RWM}$             | 80          | V    |
| DC blocking voltage                     | $V_R$                 |             |      |
| RMS reverse voltage                     | $V_{R(RMS)}$          | 57          | V    |
| Forward continuous current              | $I_{FM}$              | 500         | mA   |
| Averaged rectified output current       | $I_o$                 | 250         | mA   |
| Peak forward surge current              | $I_{FSM}$             | 4.0<br>2.0  | A    |
|   | @TP=1.0μS<br>@TP=1.0S |             |      |
| Power dissipation                       | $P_D$                 | 150         | mW   |
| Thermal resistance, junction to ambient | $R_{\theta JA}$       | 833         | °C/W |
| Storage temperature                     | $T_{STG}$             | -65 to +150 | °C   |

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

| Parameter                     | Symbol   | Conditions        | Min. | Typ. | Max.  | Unit |
|-------------------------------|----------|-------------------|------|------|-------|------|
| Reverse breakdown voltage     | $V_{BR}$ | $I_R=2.5\mu A$    | 80   |      |       | V    |
| Forward voltage               | $V_{F1}$ | $I_F=5mA$         | 0.62 |      | 0.72  | V    |
|                               | $V_{F2}$ | $I_F=10mA$        |      |      | 0.855 | V    |
|                               | $V_{F3}$ | $I_F=100mA$       |      |      | 1.0   | V    |
|                               | $V_{F4}$ | $I_F=150mA$       |      |      | 1.25  | V    |
| Reverse current               | $I_{R1}$ | $V_R=70V$         |      |      | 0.1   | μA   |
|                               | $I_{R2}$ | $V_R=20V$         |      |      | 25    | nA   |
| Capacitance between terminals | $C_T$    | $V_R=6V, f=1MHz$  |      |      | 3.5   | pF   |
| Reverse recovery time         | $T_{rr}$ | $V_R=6V, I_F=5mA$ |      |      | 4     | nS   |

## Rating and Characteristic Curves (CDSH3-4448/A/C/S-G)

Fig.1 - Forward Characteristics

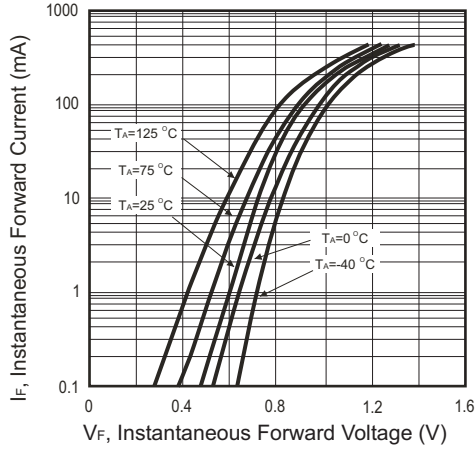


Fig.2 - Reverse Characteristics

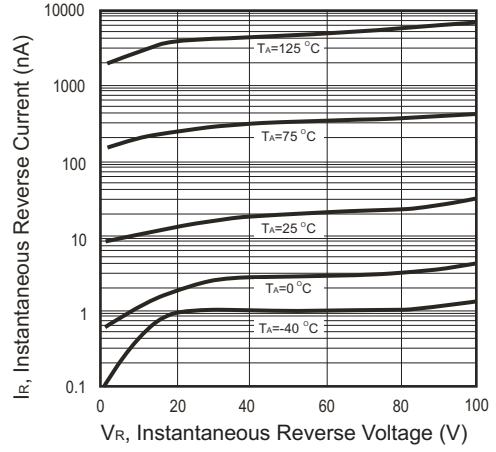


Fig.3 - Capacitance Between Terminals Characteristics

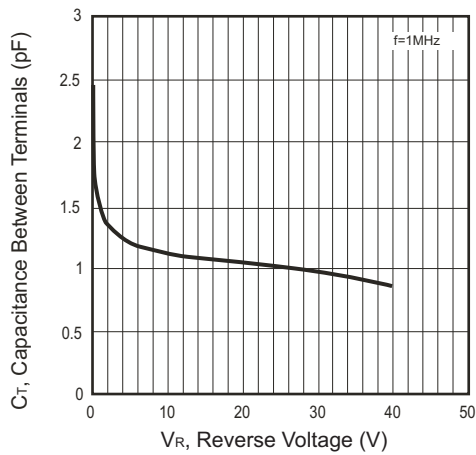


Fig.4 - Power Derating Curve

