

## CDSH3-21-G

**Voltage: 200 Volts**  
**Current: 200 mA**  
**RoHS Device**



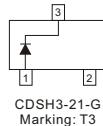
### Features

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

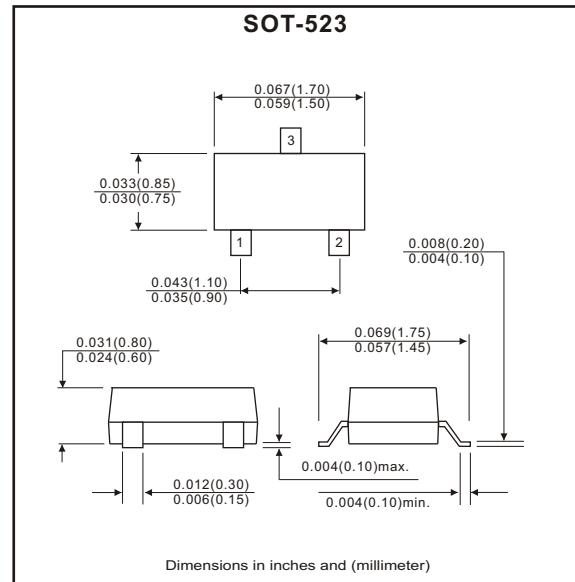
### Mechanical data

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

### Circuit Diagram



CDSH3-21-G  
Marking: T3



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

| Parameter   | Symbol           | Value       | Unit |
|---|------------------|-------------|------|
| Peak repetitive peak reverse voltage                            | V <sub>RRM</sub> |             |      |
| Working peak reverse voltage                                    | V <sub>RWM</sub> | 200         | V    |
| DC blocking voltage   | V <sub>R</sub>   |             |      |
| Forward continuous current                                      | I <sub>FM</sub>  | 400         | mA   |
| Averaged rectified output current                               | I <sub>O</sub>   | 200         | mA   |
| Non-repetitive Peak forward surge current @TP=1.0μS<br>@TP=1.0S | I <sub>FSM</sub> | 2.5<br>0.5  | A    |
| Power dissipation   | P <sub>D</sub>   | 150         | mW   |
| Thermal resistance, junction to ambient air                     | R <sub>θJA</sub> | 833         | °C/W |
| Operating junction temperature                                  | T <sub>J</sub>   | 150         | °C   |
| Storage temperature range                                       | T <sub>STG</sub> | -65 to +150 | °C   |

### Electrical Ratings @TA=25°C unless otherwise noted.

| Parameter                     | Symbol          | Conditions   | Min. | Typ. | Max. | Unit |
|-------------------------------|-----------------|--|------|------|------|------|
| Reverse breakdown voltage     | V <sub>BR</sub> | I <sub>R</sub> =100μA  | 200  |      |      | V    |
| Forward voltage               | V <sub>F1</sub> | I <sub>F</sub> =100mA  |      |      | 1    | V    |
|                               | V <sub>F2</sub> | I <sub>F</sub> =200mA  |      |      | 1.25 | V    |
| Reverse current               | I <sub>R</sub>  | V <sub>R</sub> =200V   |      |      | 100  | nA   |
| Capacitance between terminals | C <sub>T</sub>  | V <sub>R</sub> =0V, f=1MHz   |      |      | 5    | pF   |
| Reverse recovery time         | T <sub>rr</sub> | I <sub>F</sub> =I <sub>R</sub> =30mA,<br>I <sub>RR</sub> =0.1I <sub>R</sub> , R <sub>L</sub> =100Ω |      |      | 50   | nS   |

REV:A

## Rating and Characteristic Curves (CDSH3-21-G)

Fig.1 Forward Characteristics

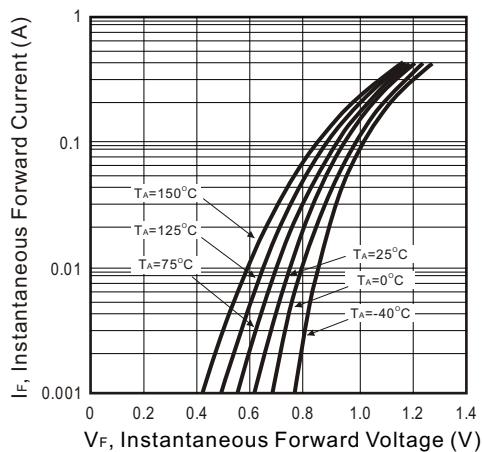


Fig.2 Reverse Characteristics

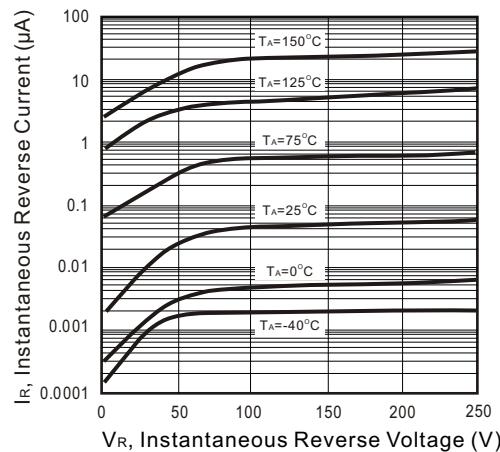


Fig.3 Capacitance Between Terminals Characteristics

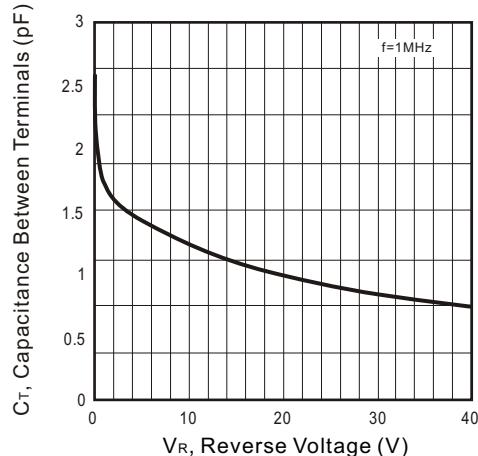


Fig.4 Power Derating Curve

