

# CDSW16-G

## RoHS Device

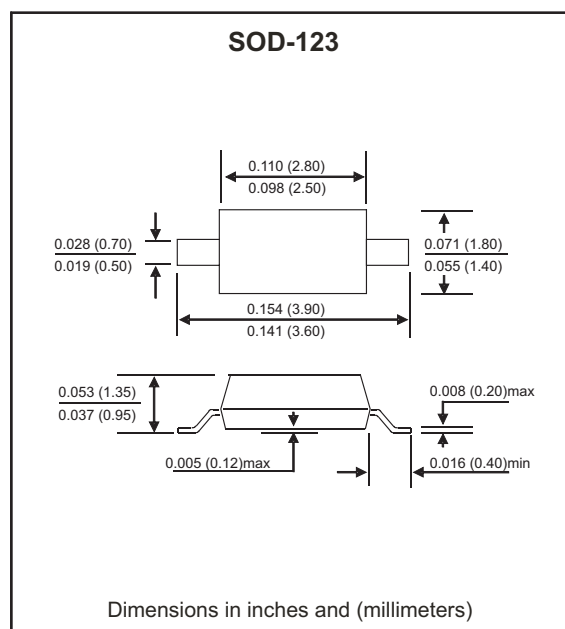


### Features

- Fast Switching Speed
- Electrically Identical to Standard JEDEC
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion
- Flat Package SOD-123 in Stead mini-MELF Package

### Mechanical data

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Weight: 0.01 gram(approx.).



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

| Parameter                                | Conditions                   | Symbol          | Min | Max    | Unit |
|------------------------------------------|------------------------------|-----------------|-----|--------|------|
| Non-Repetitive peak reverse voltage      |                              | $V_{RM}$        |     | 100    | V    |
| Peak repetitive peak reverse voltage     |                              | $V_{RRM}$       |     | 75     | V    |
| Working peak reverse voltage             |                              | $V_{RWM}$       |     | 75     | V    |
| DC blocking voltage                      |                              | $V_R$           |     | 75     | V    |
| RMS reverse voltage                      |                              | $V_{R(RMS)}$    |     | 53     | V    |
| Forward continuous current               |                              | $I_{FM}$        |     | 300    | mA   |
| Average rectified output current         |                              | $I_o$           |     | 150    | mA   |
| Peak forward surge current               | $T_P = 1\mu S$<br>$T_P = 1S$ | $I_{FSM}$       |     | 2<br>1 | A    |
| Power dissipation                        |                              | $P_D$           |     | 400    | mW   |
| Thermal Resistance (Junction to ambient) |                              | $R_{\theta JA}$ |     | 315    | °C/W |
| Storage temperature                      |                              | $T_{STG}$       | -65 | +150   | °C   |
| Junction temperature                     |                              | $T_j$           |     | +125   | °C   |

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

| Parameter                     | Conditions                                                                                               | Symbol   | Min | Typ | Max                           | Unit     |
|-------------------------------|----------------------------------------------------------------------------------------------------------|----------|-----|-----|-------------------------------|----------|
| Forward voltage               | $I_F = 1\text{ mA DC}$<br>$I_F = 10\text{ mA DC}$<br>$I_F = 50\text{ mA DC}$<br>$I_F = 150\text{ mA DC}$ | $V_F$    |     |     | 0.715<br>0.855<br>1.0<br>1.25 | V        |
| Reverse current               | $V_R = 20\text{ V}$<br>$V_R = 75\text{ V}$                                                               | $I_R$    |     |     | 25<br>1                       | nA<br>uA |
| Capacitance between terminals | $f = 1\text{ MHz, and } 0\text{ VDC reverse voltage}$                                                    | $C_T$    |     |     | 2                             | pF       |
| Reverse recovery time         | $I_F = I_R = 10\text{ mA, } R_L = 100\text{ ohms, } I_{rr} = 0.1 \times I_R$                             | $T_{RR}$ |     |     | 4                             | nS       |

Typical Characteristics (CDSW16-G)

Fig.1 - Forward Characteristics

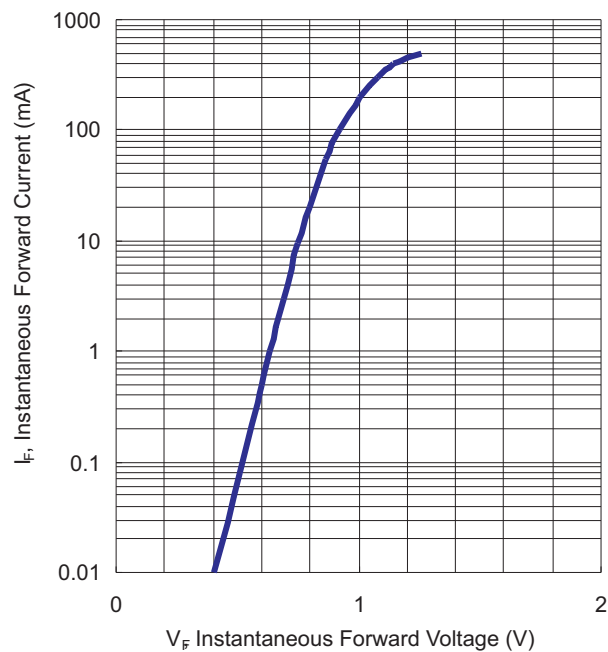


Fig.2 - Leakage current V.S. Junction Temperature

