

SMD Switching Diode



SMD Diodes Specialist



CDSW16-G

High Speed
RoHS Device
Features

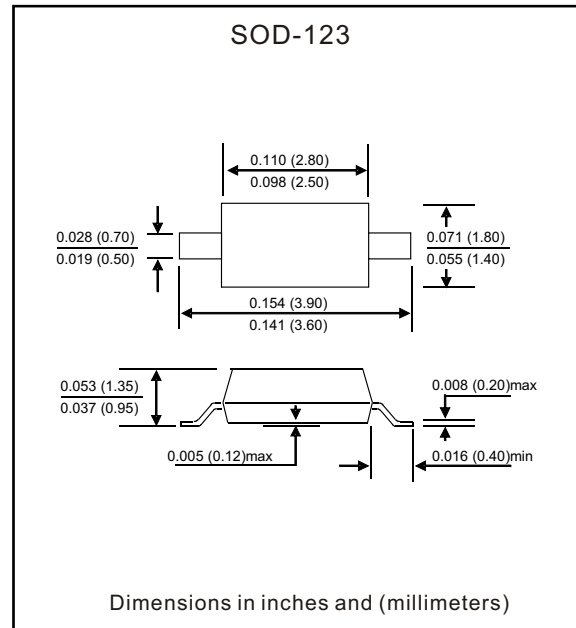
- Fast Switching Speed
- Electrically Identical to Standard JEDEC
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion
- Flat Package SOD-123 in Stead mini-MELF Package

Mechanical data

Case: SOD-123, Molded Plastic

Terminals: Solderable per MIL-STD-202, Method 208

Weight: 0.01 gram(approx.).



Maximum Rating (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 Working peak reverse voltage DC blocking voltage | | V_{RRM} V_{RWM} 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 | $T_P = 1\mu S$ $T_P = 1 S$ | I_{FSM} | | 2 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 | $I_F = 1\text{ mA DC}$ $I_F = 10\text{ mA DC}$ $I_F = 50\text{ mA DC}$ $I_F = 150\text{ mA DC}$ | V_F | | | 0.715 0.855 1.0 1.25 | V |
| Reverse current | $V_R = 20\text{ V}$ $V_R = 75\text{ V}$ | I_R | | | 25 1 | nA 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

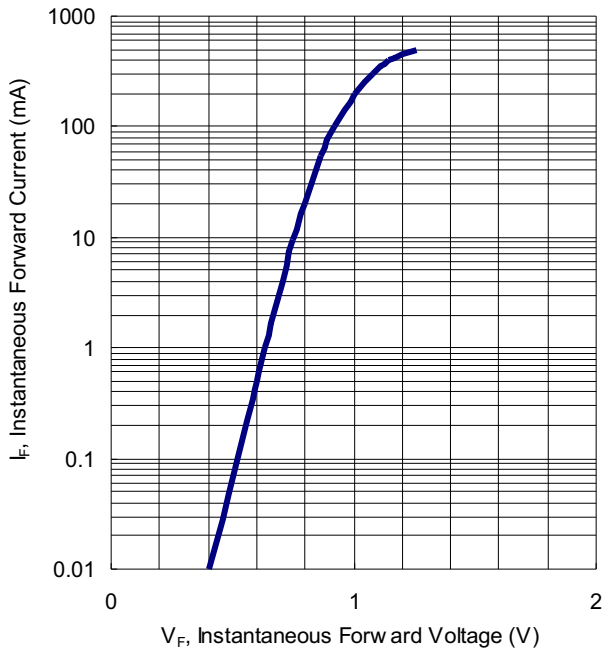


Fig. 2 - Leakage current V.S. Junction Temperature

