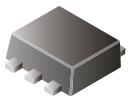
# SMD Switching Diode

COMCHIP
SMD Diodes Specialist

# CDSH6-16-G

## High Speed
## RoHS Device



## Features

-Fast Switching Speed

-For general purpose switching applications.

-High conductance.

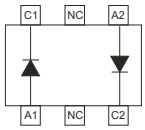
## Mechanical data

Case: SOT-563, Molded Plastic

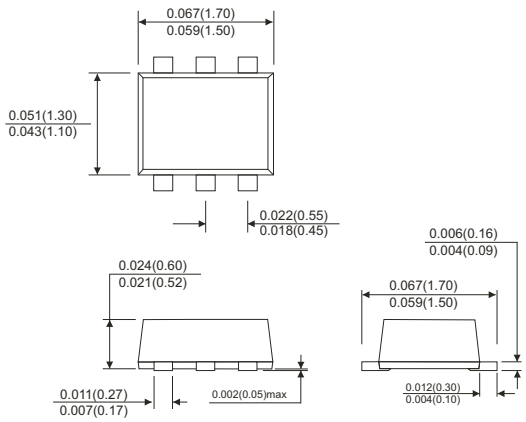
Terminals: Solderable per MIL-STD-202, Method 208

## Marking: KAM

## Circuit diagram




SOT-563




Dimensions in inches and (millimeters)

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

| Parameter | Symbol | Max | Unit |
|---|---|---|---|
| Non-repetitive peak reverse voltage | $V_{RM}$ | 100 | V |
| Peak repetitive peak reverse voltage<br>Working peak reverse voltage<br>DC blocking voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 75 | V |
| RMS reverse voltage | $V_{R(RMS)}$ | 53 | V |
| Forward continuous current | $I_{FM}$ | 300 | mA |
| Averaged rectified output current | $I_O$ | 200 | mA |
| Peak forward surge current @t=1.0μs<br>@T=1.0s | $I_{FSM}$ | 2<br>1 | A |
| Power dissipation | $P_D$ | 150 | mW |
| Thermal resistance, junction to air | $R_{\theta JA}$ | 833 | °C/W |
| Junction temperature | $T_J$ | 150 | °C |
| Storage temperature | $T_{STG}$ | -65 to +150 | °C |

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

| Parameter | Conditions | Symbol | Min | Max | Unit |
|---|---|---|---|---|---|
| Reverse breakdown voltage | $I_R$=100μA | $V_{BR}$ | 75 | | V |
| Reverse voltage leakage current | $V_R$=75V<br>$V_R$=20V | $I_R$ | | 1<br>25 | μA<br>nA |
| Forward voltage | $I_F$=1mA<br>$I_F$=10mA<br>$I_F$=50mA<br>$I_F$=150mA | $V_F$ | | 0.715<br>0.855<br>1<br>1.25 | V |
| Diode capacitance | $V_R$=0V, f=1MHz | $C_T$ | | 2 | pF |
| Reverse recovery time | $I_F$=$I_R$=10mA, $I_{rr}$=0.1x$I_R$, $R_L$=100Ω | $t_{rr}$ | | 4 | nS |

## Typical Characteristics (CDSH6-16-G)

Fig.1 Forward Power Derating Curve

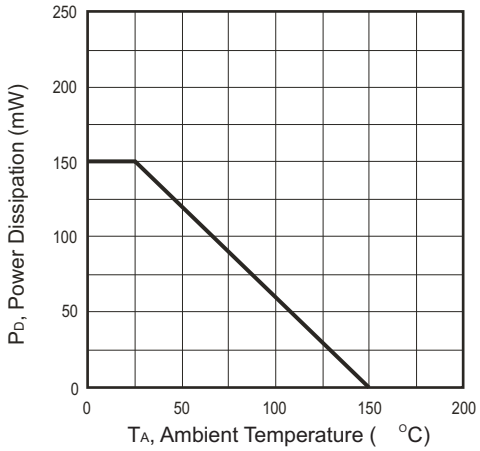



Fig.2 Typical Forward Characteristics

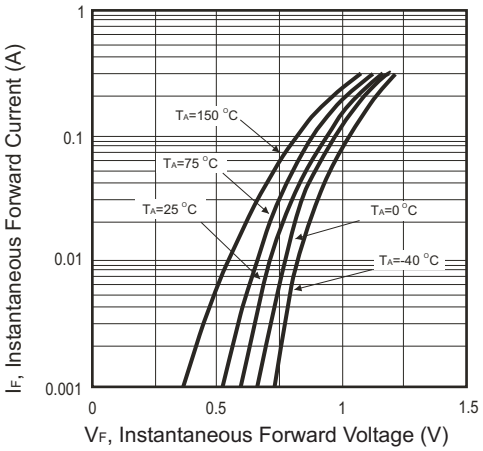



Fig.3 Typical Diode Capacitance Characteristics

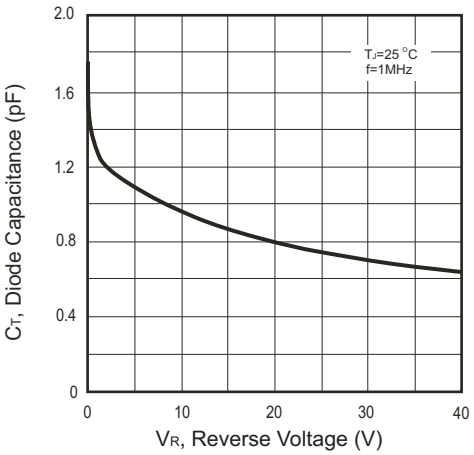



Fig.4 Typical Reverse Current Characteristics