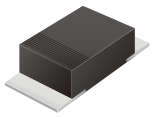
# SMD Super Fast Recovery Rectifiers

COMCHIP
SMD Diodes Specialist

# CSFM101-G Thru. CSFM105-G

## Reverse Voltage: 50 to 600 Volts
## Forward Current: 1.0 Amp
## RoHS Device



## Features

-Ideal for surface mount applications.

-Easy pick and place.

-Plastic package has Underwriters Lab. flammability classification 94V-0.

-Super fast recovery time 35nS.

-Built-in strain relief.

-Low forward voltage drop.

## Mechanical data

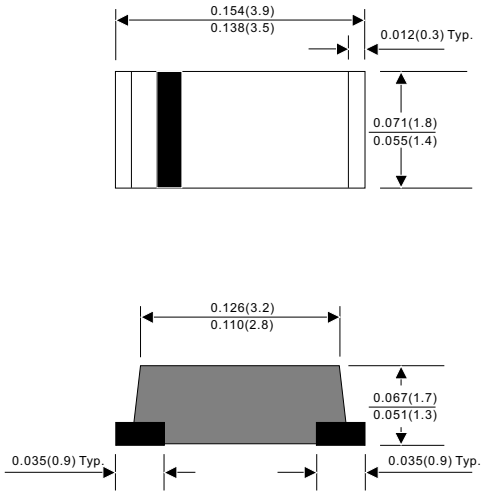
-Case: Molded plastic, JEDEC SOD-123/Mini SMA.

-Terminals: Solderable per MIL-STD-750, method 2026.

-Polarity: Indicated by cathode band.

-Weight: 0.04 grams approx.

**Mini SMA**




Dimensions in inches and (millimeter)

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

| Parameter | Symbol | CSFM 101-G | CSFM 102-G | CSFM 103-G | CSFM 104-G | CSFM 105-G | Unit |
|---|---|---|---|---|---|---|---|
| Max. repetitive peak reverse voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | V |
| Max. DC blocking voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | V |
| Max. RMS voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | V |
| Max. averaged forward current | $I_O$ | 1.0 | | | | | A |
| Maximum Instantaneous forward voltage at $I_F$=1.0A | $V_F$ | 0.95 | | | 1.25 | 1.70 | V |
| Forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 25 | | | | | A |
| Reverse recovery time | $T_{rr}$ | 35 | | | | | nS |
| Reverse current at rated @$T_A$=25°C<br>DC blocking voltage @$T_A$=100°C | $I_R$ | 5.0<br>100 | | | | | μA |
| Max. thermal resistance (Note 1) | $R_{\theta JA}$ | 42 | | | | | °C/W |
| Operating junction temperature | $T_J$ | 150 | | | | | °C |
| Storage temperature range | $T_{STG}$ | -55 to +150 | | | | | °C |

Note 1: Thermal resistance from junction ambient.

## Rating and Characteristic Curves (CSFM101-G Thru. CSFM105-G)

Fig.1 Reverse Characteristics

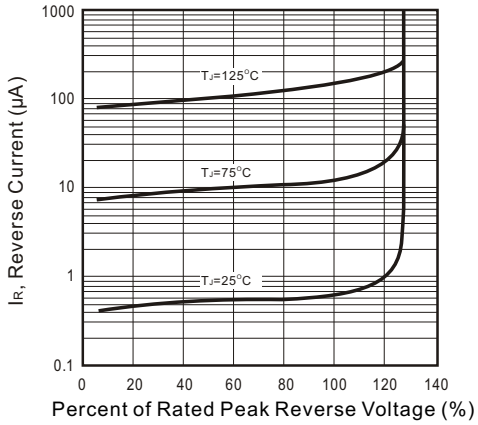



Fig.2 Forward Characteristics

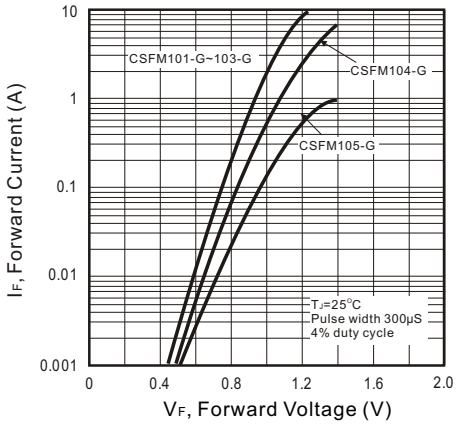



Fig.3 Junction Capacitance

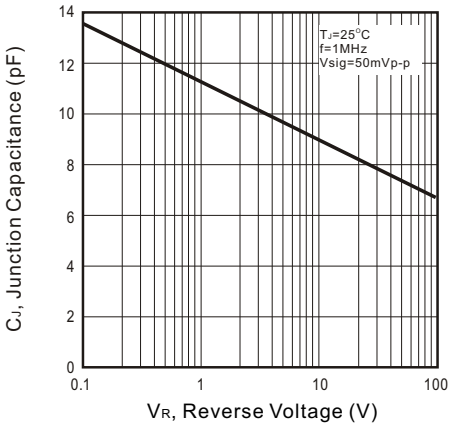



Fig.4 Current Derating Curve

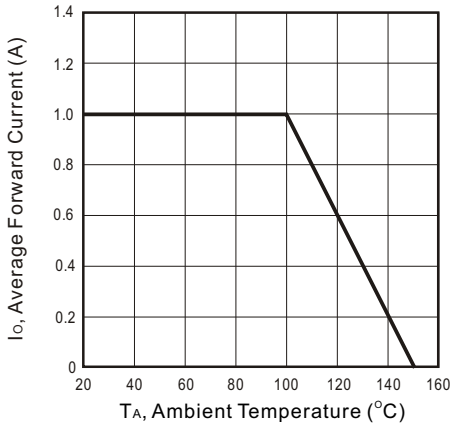



Fig.5 Non-repetitive Forward Surge Current

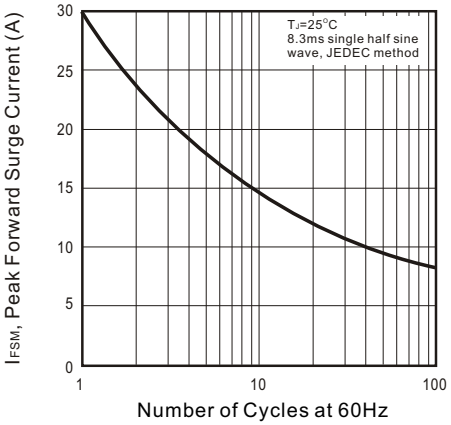
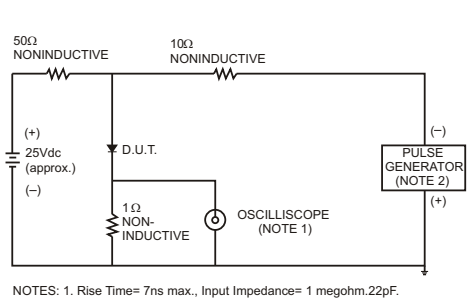
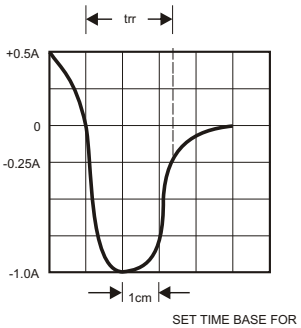



Fig.6 Test Circuit Diagram and Reverse Recovery Time Characteristics




NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.




SET TIME BASE FOR
50 / 10ns / cm