Ordering number : EN8372A

SANYO Semiconductors
DATA SHEET

# SS1003M3 — Schottky Barrier Diode 30V, 1.0A Rectifier

## Applications

- High frequency rectification (switching regulators, converters, choppers).

## Features

- Low switching noise.
- Low forward voltage ($I_F$=1.0A, $V_F$ max=0.43V).
- Ultrasmall package permitting applied sets to be small and slim.

## Specifications

### Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|---|---|---|---|---|
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | | 30 | V |
| Nonrepetitive Peak Reverse Surge Voltage | $V_{RSM}$ | | 30 | V |
| Average Output Current | $I_O$ | | 1.0 | A |
| Surge Forward Current | $I_{FSM}$ | 50Hz sine wave, 1 cycle | 10 | A |
| Junction Temperature | Tj | | -55 to +125 | °C |
| Storage Temperature | Tstg | | -55 to +125 | °C |

### Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|---|---|---|---|---|---|
| | | | min | typ | max | |
| Reverse Voltage | $V_R$ | $I_R$=0.5mA | 30 | | | V |
| Forward Voltage | $V_F1$ | $I_F$=0.5A | | 0.32 | 0.37 | V |
| | $V_F2$ | $I_F$=1.0A | | 0.38 | 0.43 | V |
| Reverse Current | $I_R$ | $V_R$=16V | | | 360 | μA |
| Interterminal Capacitance | C | $V_R$=10V, f=1MHz | | 27 | | pF |
| Reverse Recovery Time | $t_{rr}$ | $I_F$=$I_R$=100mA, See specified Test Circuit. | | | 10 | ns |

Marking : SJ

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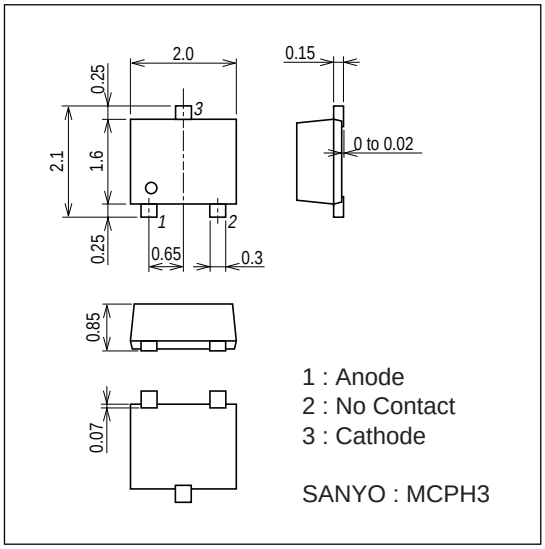
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|---|---|---|---|---|---|
| | | | min | typ | max | |
| Thermal Resistance | Rth(j-a)1 | Mounted in Cu-foiled area of 0.72mm²×0.03mm on glass epoxy board | | 94.7 | | °C / W |
| | Rth(j-a)2 | Mounted on a ceramic board (500mm²×0.8mm) | | 67.7 | | °C / W |

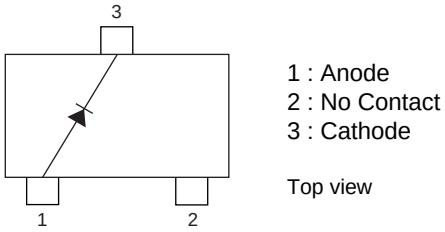
## Package Dimensions

unit : mm (typ)

7019A-001




## Electrical Connection




## $t_{rr}$ Test Circuit