



# SS3003CH

## Schottky Barrier Diode 30V, 3.0A, Low $V_F$ , Single CPH6

ON Semiconductor®

<http://onsemi.com>

### Applications

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

### Features

- Small switching noise
- Low forward voltage ( $I_F=3A$ ,  $V_F \text{ max}=0.42V$ )
- Ultrasmall package permitting applied sets to be small and slim
- Halogen free compliance

### Specifications

Absolute Maximum Ratings at  $T_a=25^\circ\text{C}$ 

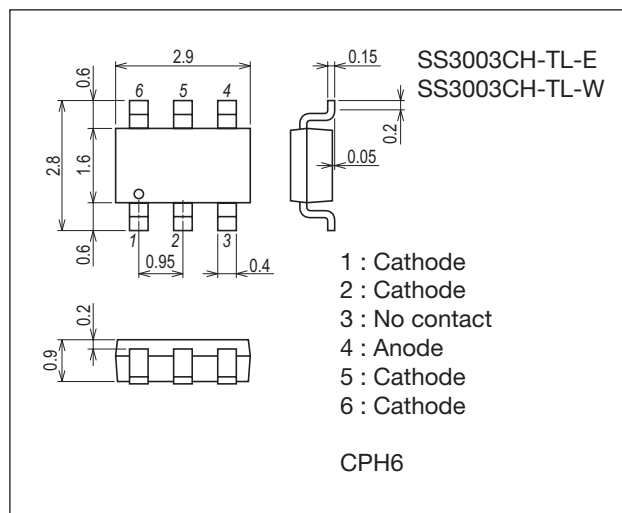
| Parameter                                | Symbol    | Conditions              | Ratings     | Unit             |
|------------------------------------------|-----------|-------------------------|-------------|------------------|
| Repetitive Peak Reverse Voltage          | $V_{RRM}$ |                         | 30          | V                |
| Nonrepetitive Peak Reverse Surge Voltage | $V_{RSM}$ |                         | 30          | V                |
| Average Output Current                   | $I_O$     |                         | 3.0         | A                |
| Surge Forward Current                    | $I_{FSM}$ | 50Hz sine wave, 1 cycle | 20          | A                |
| Junction Temperature                     | $T_J$     |                         | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature                      | $T_{stg}$ |                         | -55 to +125 | $^\circ\text{C}$ |

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

### Package Dimensions

unit : mm (typ)

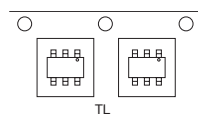
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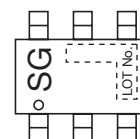
### Product & Package Information

- Package : CPH6
- JEITA, JEDEC : SC-74, SOT-26, SOT-457
- Minimum Packing Quantity : 3,000 pcs./reel

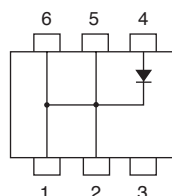
### Packing Type: TL



### Marking



### Electrical Connection



### ORDERING INFORMATION

See detailed ordering and shipping information on page 2 of this data sheet.

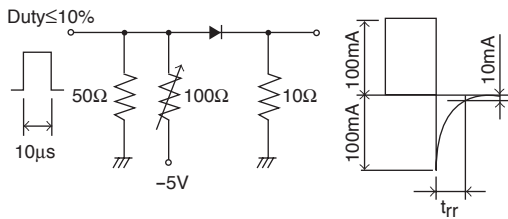
# SS3003CH

## Electrical Characteristics at Ta=25°C

| Parameter                 | Symbol        | Conditions                                                    | Ratings |       |       | Unit   |
|---------------------------|---------------|---------------------------------------------------------------|---------|-------|-------|--------|
|                           |               |                                                               | min     | typ   | max   |        |
| Reverse Voltage           | $V_R$         | $I_R=2.0\text{mA}$                                            | 30      |       |       | V      |
| Forward Voltage           | $V_F$         | $I_F=2.0\text{A}$                                             |         | 0.335 | 0.385 | V      |
|                           |               | $I_F=3.0\text{A}$                                             |         | 0.37  | 0.42  | V      |
| Reverse Current           | $I_R$         | $V_R=15\text{V}$                                              |         |       | 1.4   | mA     |
| Interterminal Capacitance | C             | $V_R=10\text{V}$ , $f=1\text{MHz}$                            |         | 90    |       | pF     |
| Reverse Recovery Time     | $t_{rr}$      | $I_F=I_R=100\text{mA}$                                        |         |       | 20    | ns     |
| Thermal Resistance        | $R_{th}(j-a)$ | When mounted on ceramic substrate (900mm <sup>2</sup> ×0.8mm) |         | 50    |       | °C / W |

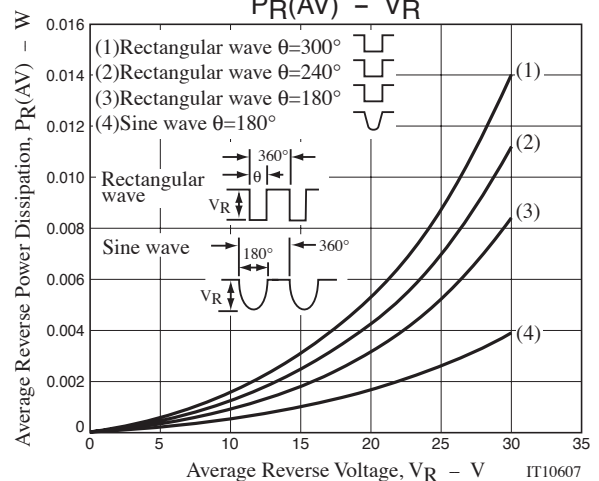
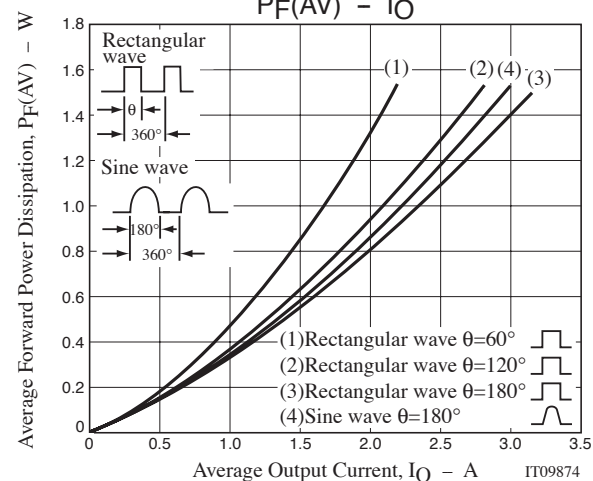
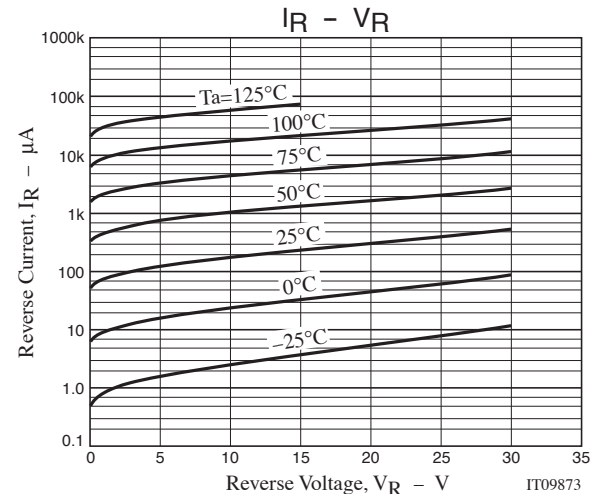
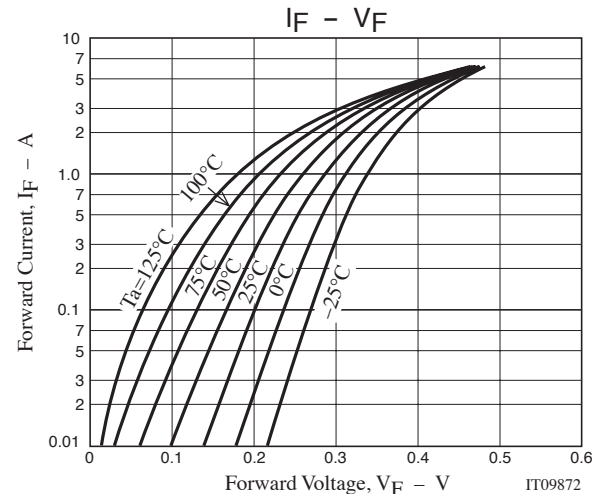
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

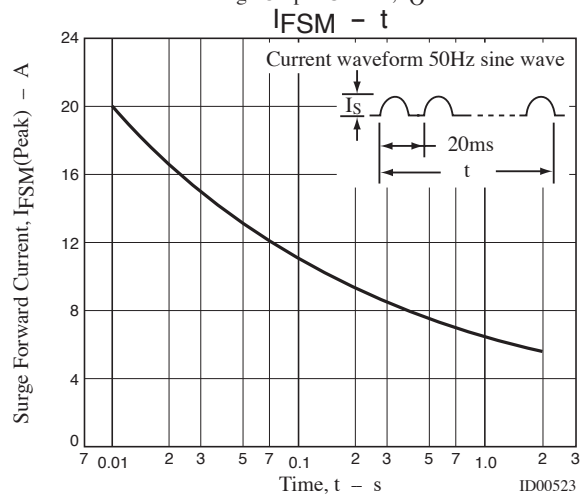
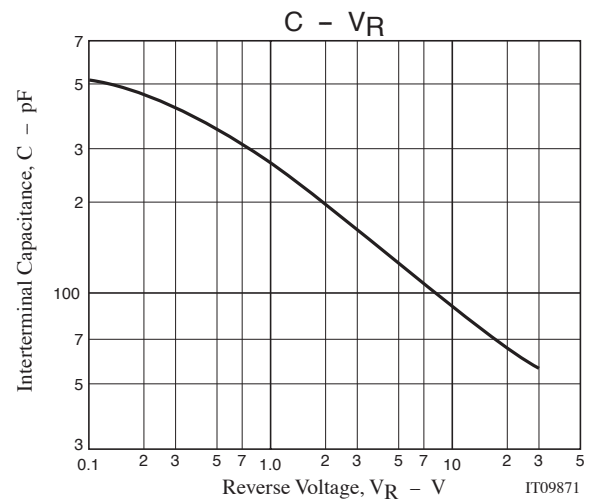
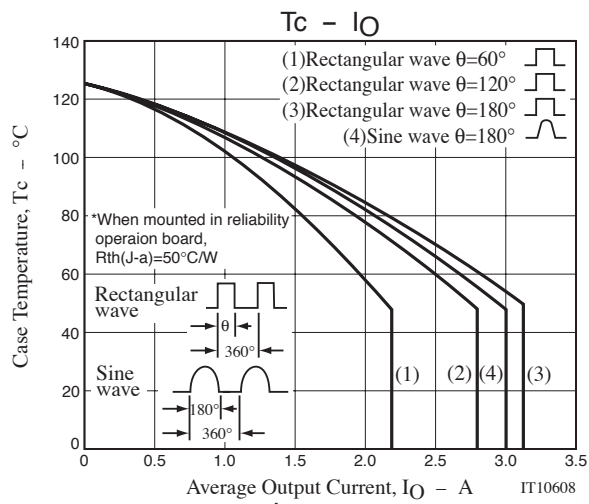
## $t_{rr}$ Test Circuit



## Ordering Information

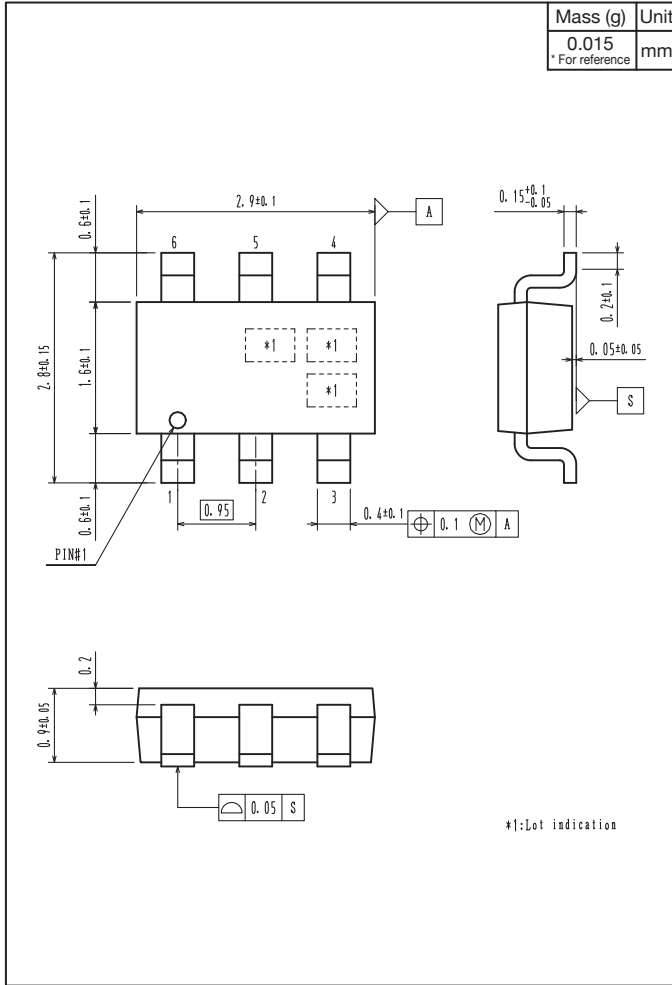
| Device        | Package | Shipping       | memo                     |
|---------------|---------|----------------|--------------------------|
| SS3003CH-TL-E | CPH6    | 3,000pcs./reel | Pb-Free                  |
| SS3003CH-TL-W | CPH6    | 3,000pcs./reel | Pb-Free and Halogen Free |



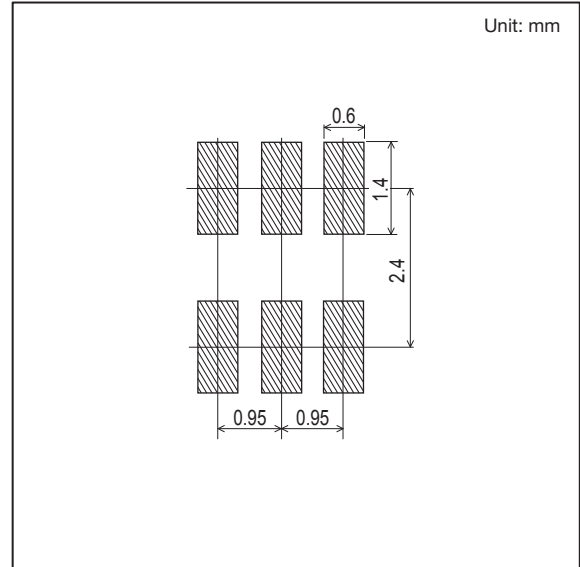


## Outline Drawing

SS3003CH-TL-E, SS3003CH-TL-W



## Land Pattern Example



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