



**Surface mount  
Schottky**

| Type   | Repetitive peak reverse voltage<br>$V_{RRM}$<br>V | Surge peak reverse voltage<br>$V_{RSM}$<br>V | Max. reverse recovery time<br>$I_F = A$<br>$I_R = A$<br>$I_{RR} = A$<br>$t_{rr}$<br>ns | Max. forward voltage<br>$V_F^{2)}$ |
|--------|---|--|--|------------------------------------|
| CS 10D | 20  | 20   | /  | < 0,50                             |
| CS 20D | 40  | 40   | /  | < 0,50                             |
| CS 30D | 60  | 60   | /  | < 0,70                             |
| CS 40D | 80  | 80   | /  | < 0,79                             |
| CS 50D | 100   | 100  | /  | < 0,79                             |

## Bridge rectifiers

### CS 10D ... CS 50D

**Forward Current: 1 A**

**Reverse Voltage: 10 to 50 V**

Publish Data

### Features

- Standard packaging into plastic tubes

### Mechanical Data

- Plastic case SO-DIL 8.5x6.6x3.1 mm
- Weight approx. 0.6 g
- 2)  $I_F = 1A$ ,  $T_j = 25^\circ C$

| Absolute Maximum Ratings |  | $T_c = 25^\circ C$ unless otherwise specified |                  |
|--------------------------|--|---|------------------|
| Symbol                   | Conditions   | Values  | Units            |
| $I_{FAV}$                | Max. averaged fwd. current, R-load, $T_A = 50^\circ C$ <sup>1)</sup> | 1   | A                |
| $I_{FRM}$                | Repetitive peak forward current $f > 15 Hz$ <sup>1)</sup>            | 10  | A                |
| $I_{FSM}$                | Peak forward surge current 50 Hz half sinus-wave <sup>3)</sup>       | 40  | A                |
| $i^2t$                   | Rating for fusing, $t < 10 ms$ <sup>3)</sup>                         | 8   | A <sup>2</sup> s |
| $R_{thA}$                | Max. thermal resistance junction to ambient <sup>1)</sup>            | 60  | K/W              |
| $R_{thT}$                | Max. thermal resistance junction to terminals <sup>1)</sup>          |   | K/W              |
| $T_j$                    | Operating junction temperature                                       | -50 ... +150°C                                | °C               |
| $T_s$                    | Storage temperature  | -50 ... +150°C                                | °C               |

| Characteristics |  | $T_c = 25^\circ C$ unless otherwise specified |         |
|-----------------|--|---|---------|
| Symbol          | Conditions   | Values  | Units   |
| $I_R$           | Maximum leakage current, $T_j = 25^\circ C$ ; $V_R = V_{RRM}$  | 0,5   | mA      |
|                 | $T_j = 100^\circ C$ ; $V_R = V_{RRM}$  | 5   | mA      |
| $C_j$           | Typical junction capacitance<br>(at MHz and applied reverse voltage of V)                                      |   | pF      |
| $Q_{rr}$        | Reverse recovery charge<br>( $U_R = V$ ; $I_F = A$ ; $di_F/dt = A/ms$ )  |   | $\mu C$ |
| $E_{RSM}$       | Non repetitive peak reverse avalanche energy<br>( $I_R = mA$ ; $T_j = ^\circ C$ ; inductive load switched off) |   | mJ      |



