

**Surface mount  
Schottky**

## Bridge rectifiers

**CS 10S ... CS 50S**

**Forward Current: 1 A**

**Reverse Voltage: 10 to 50 V**

Publish Data

## Features

- Standard packaging taped and reeled

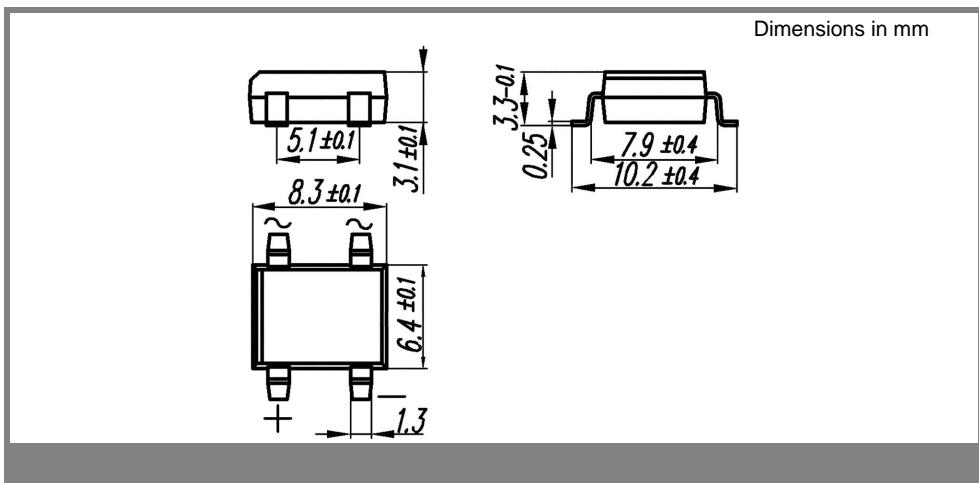
## Mechanical Data

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

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

<b>Absolute Maximum Ratings</b>		$T_c = 25^\circ\text{C}$ unless otherwise specified	
<b>Symbol</b>	<b>Conditions</b>	<b>Values</b>	<b>Units</b>
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_A = 50^\circ\text{C}$ <sup>1)</sup>	1	A
$I_{FRM}$	Repetitive peak forward current $f > 15\text{ Hz}$ <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, $t < 10\text{ ms}$ <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

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



# CS 10S ... CS 50S ...

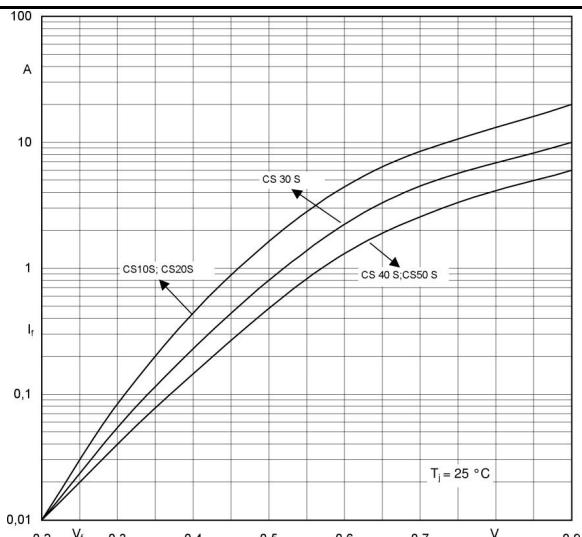


Fig. 1 : Forward characteristic (typical values)

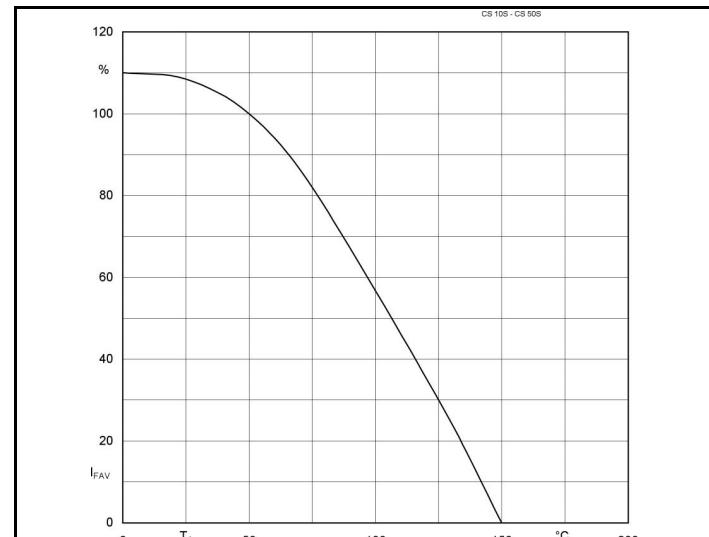


Fig. 2 : Rated current vs. ambient temperature