

# Schottky barrier diode

## RB491DN3

### Description

Planar silicon Schottky barrier diode encapsulated in a SOT-23 plastic SMD package.

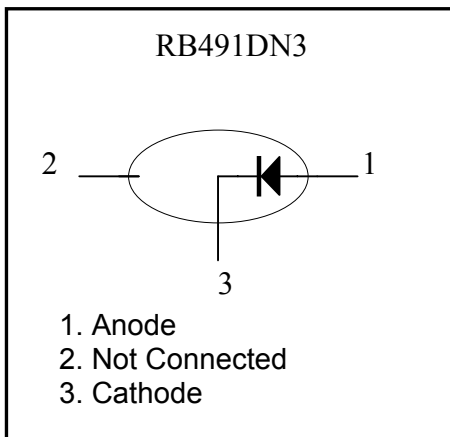
### Features

- Small surface mounting type SOT-23
- Ultra low  $V_F$  ( $V_F=0.4V$  typ at 1A)
- $I_F=1A$  guaranteed despite the size

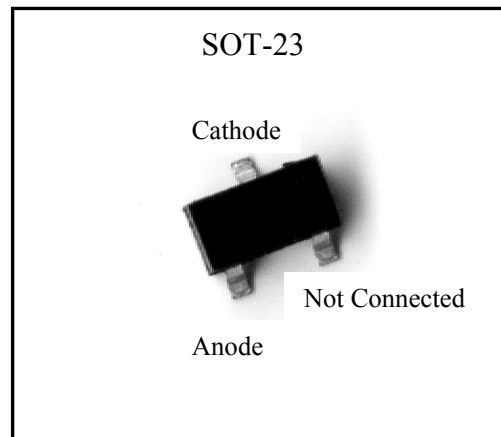
### Applications

- Low power rectification
- For switching power supply

### Symbol



### Outline



### Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Peak reverse voltage	$V_{RM}$	25	V
DC reverse voltage	$V_R$	20	V
DC forward current	$I_F$	1	A
Peak forward surge current *	$I_{FSM}$	3	A
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-40~+125	°C

\* 60 Hz for 1 cycle

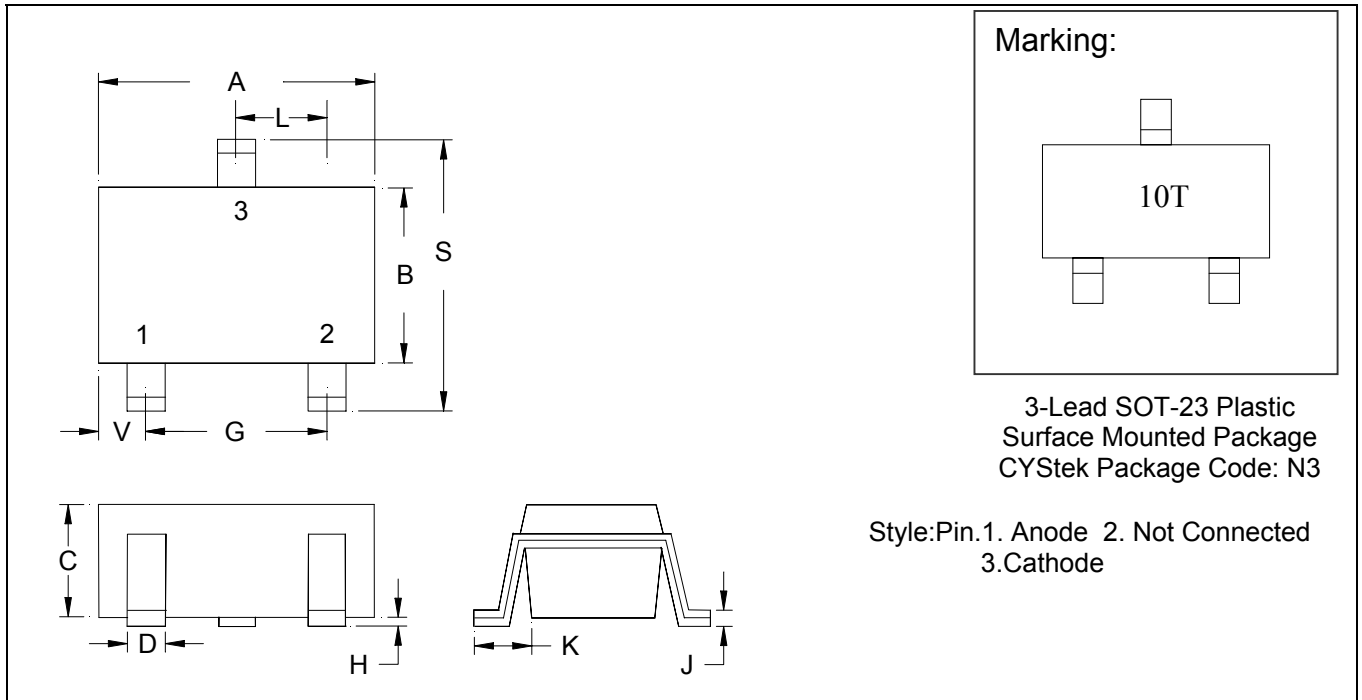


**Electrical Characteristics (Ta=25°C)**

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1A	-	-	0.45	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =20V	-	-	200	μA

Note:ESD sensitive product handling required

**SOT-23 Dimension**



\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.1204	2.80	3.04	J	0.0034	0.0070	0.085	0.177
B	0.0472	0.0630	1.20	1.60	K	0.0128	0.0266	0.32	0.67
C	0.0335	0.0512	0.89	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1083	2.10	2.75
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	0.0005	0.0040	0.013	0.10					

Notes: 1. Controlling dimension: millimeters.  
 2. Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.  
 3. If there is any question with packing specification or packing method, please contact your local CYStek sales office.

**Material:**

- Lead: 42 Alloy ; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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