



## DESCRIPTION

The RB491D is available in SOT-23 Package

## ORDERING INFORMATION

Package Type	Part Number
SOT-23	RB491D
Note	3,000pcs/Reel
AiT provides all RoHS Compliant Products	

## CONSTRUCTION

Silicon epitaxial planar

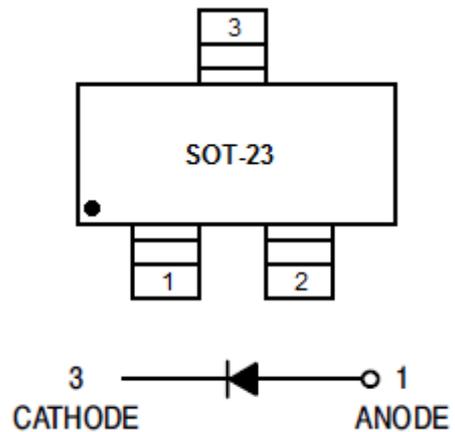
## FEATURES

- Small mold type. (SOT-23)
- Ultra low  $V_F$ . ( $V_F=0.40V$  Typ. at 1A)
- $I_F=1.0A$  guaranteed despite the size.
- RoHS Compliant
- Available in SOT-23 Package

## APPLICATIONS

- Low-power rectification
- For switching power supply

## PIN DESCRIPTION





## ABSOLUTE MAXIMUM RATINGS

@T<sub>A</sub>=25°C

V <sub>RM</sub> , Peak Reverse Voltage	25V
V <sub>R</sub> , DC Reverse Voltage	20V
I <sub>F</sub> , DC Forward Current	1.0A
I <sub>FSM</sub> <sup>NOTE1</sup> , Peak Forward Surge Current	3A
T <sub>J</sub> , Junction Temperature	125°C
T <sub>STG</sub> , Storage Temperature	-40°C ~+125°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

NOTE1: 60Hz for 1<sup>ms</sup>

## ELECTRICAL CHARACTERISTICS

@T<sub>A</sub>=25°C

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =1.0A			0.45	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =20V			200	μA

NOTE: ESD sensitive product handling required.



**TYPICAL CHARACTERISTICS**

Figure 1. Forward characteristics

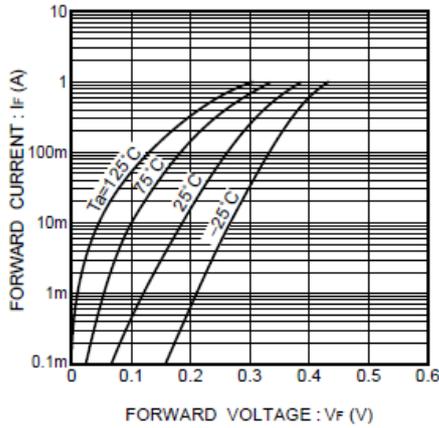


Figure 2. Reverse characteristics

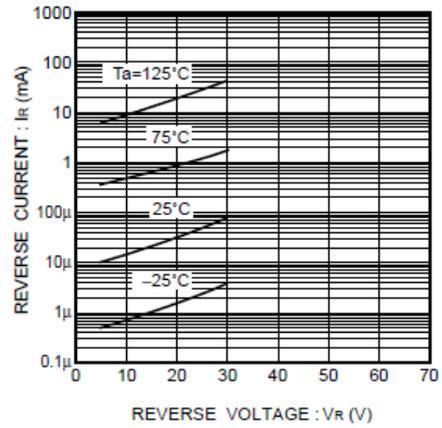


Figure 3. Capacitance between terminals characteristics

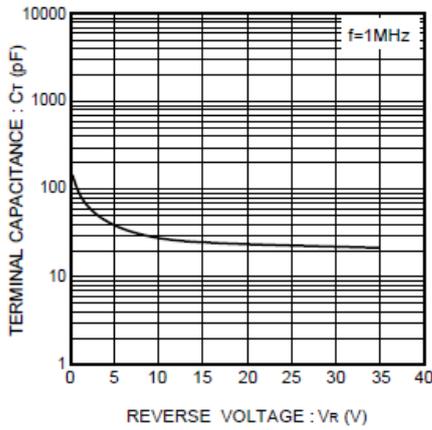


Figure 4. Forward power dissipation characteristics

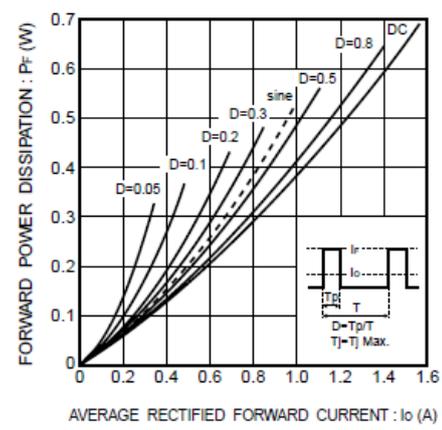
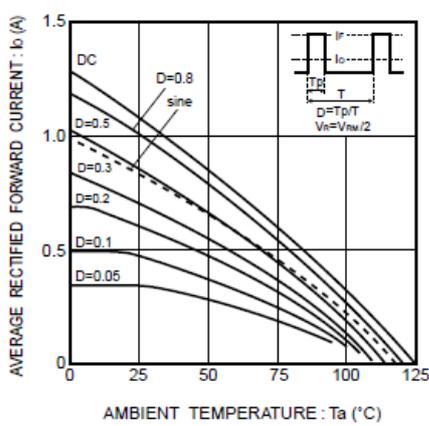


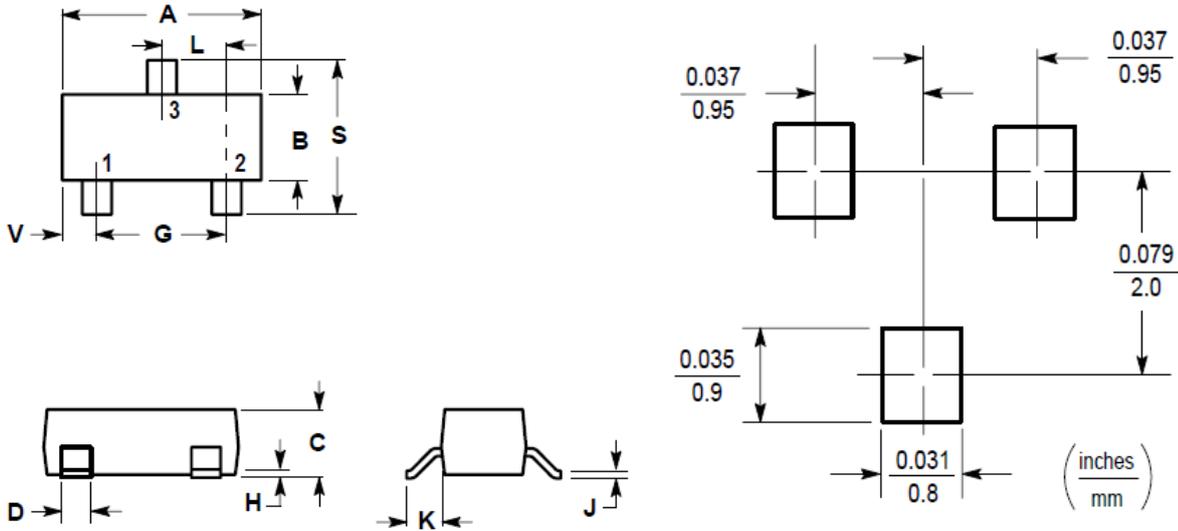
Figure 5. Derating curve ( $I_o - T_A$ )





**PACKAGE INFORMATION**

Dimension in SOT-23 Package (Unit: mm)



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.1102	0.1197
B	1.20	1.40	0.0472	0.0551
C	0.89	1.11	0.0350	0.0440
D	0.37	0.50	0.0150	0.0200
G	1.78	2.04	0.0701	0.0807
H	0.013	0.100	0.0005	0.0040
J	0.085	0.177	0.0034	0.0070
K	0.35	0.69	0.0140	0.0285
L	0.89	1.02	0.0350	0.0401
S	2.10	2.64	0.0830	0.1039
V	0.45	0.60	0.0177	0.0236



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