



## DESCRIPTION

The RB521S-40 is available in SOD-523 package

## FEATURES

- Low  $V_F$ .
- Silicon epitaxial planar
- Extremely small surface mounting type.
- Available in SOD-523 package

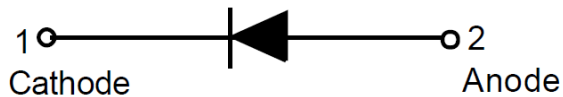
## ORDERING INFORMATION

Package Type	Part Number
SOD-523	RB521S-40
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

## APPLICATIONS

- Low current rectification and high speed switching

## PIN DESCRIPTION





## ABSOLUTE MAXIMUM RATINGS

$T_A = 25^\circ\text{C}$

$V_R$ , DC Reverse Voltage	40V
$I_O$ , Mean Rectifying Current	200mA
$I_{FSM}$ , Peak Forward Surge Current <sup>NOTE1</sup>	4A
$T_J$ , Junction Temperature	125°C
$T_{STG}$ , Storage Temperature	-55°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 $\infty$

## ELECTRICAL CHARACTERISTICS

$T_A = 25^\circ$

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=10\text{mA}$	0.16	-	0.30	V
		$I_F=100\text{mA}$	0.31	-	0.45	
		$I_F=200\text{mA}$	0.37	-	0.52	
Reverse Current	$I_R$	$V_R=10\text{V}$	-	-	20	$\mu\text{A}$
		$V_R=40\text{V}$	-	-	90	
ESD Break Down Voltage	ESD	C=100pF, R=1.5kohm forward and reverse 1 time	8	-	-	kV



## ELECTRICAL CHARACTERISTIC CURVES

Figure 1.  $I_F$  vs.  $V_F$

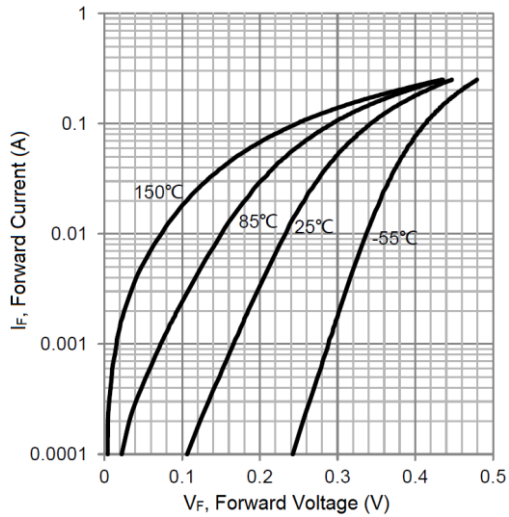


Figure 2.  $I_R$  vs.  $V_R$

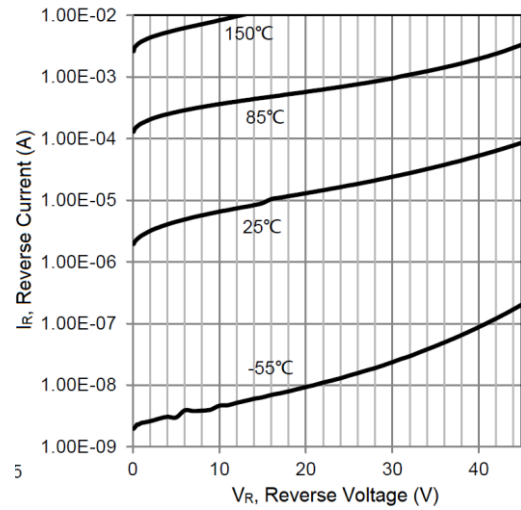
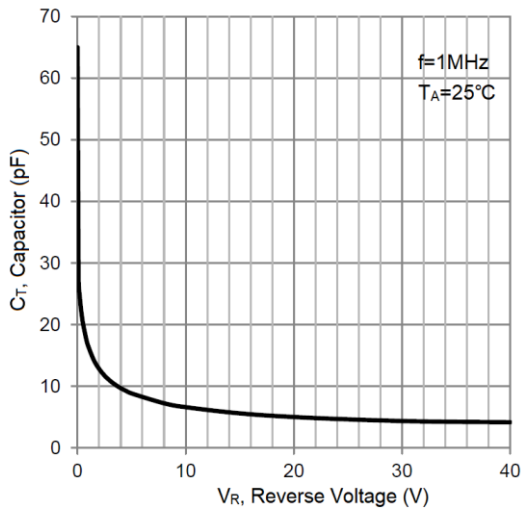


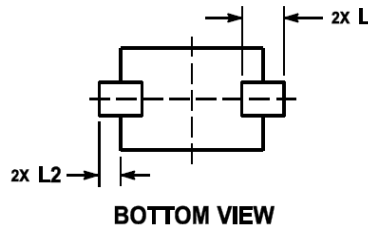
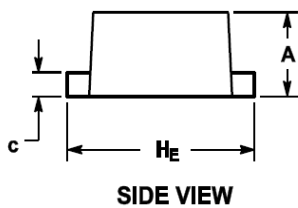
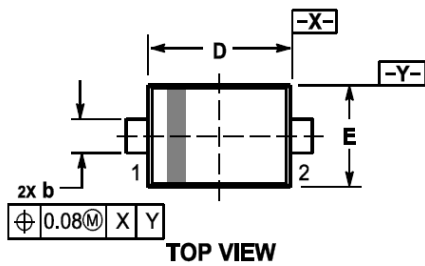
Figure 3.  $C_T$  vs.  $V_R$



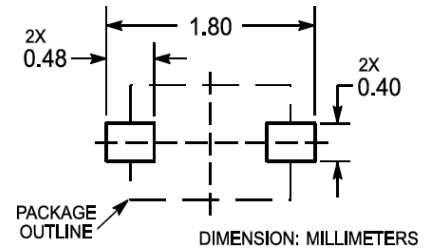


## PACKAGE INFORMATION

Dimension in SOD-523 Package (Unit: mm)



## SOLDERING FOOTPRINT



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
c	0.07	0.20	0.003	0.008
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
HE	1.50	1.70	0.059	0.067
L	0.30 REF		0.012 REF	
L2	0.15	0.25	0.006	0.010



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