



## DESCRIPTION

Silicon epitaxial planar

The RB520S-30 is available in SOD-523 (SC-79) package.

## FEATURES

- Extremely small surface mounting type.
- Extremely Fast Switching Speed
- Extremely Low Forward Voltage  
0.6V(max) @ $I_F = 200\text{mA}$
- Low Reverse Current
- Available in SOD-523 (SC-79) package

## ORDERING INFORMATION

Package Type	Part Number
SOD-523 (SC-79)	RB520S-30
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	30V
$I_O$ , Mean rectifying current	200mA
$I_{FSM}$ , Peak forward surge current	1A
$P_D$ , Total Power Dissipation @ $T_A=25^\circ\text{C}$ Derate Above $25^\circ\text{C}$	150mW 1.2mW/ $^\circ\text{C}$
$R_{JA}$ , Thermal Resistance, Junction to Ambient	833 $^\circ\text{C}/\text{W}$
$T_J$ , Junction temperature	125 $^\circ\text{C}$
$T_{STG}$ , Storage temperature	-40 $^\circ\text{C}$ ~ +125 $^\circ\text{C}$

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.

## ELECTRICAL CHARACTERISTICS

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

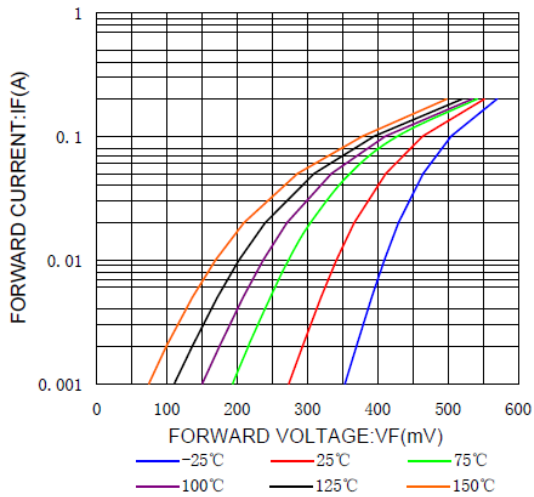
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 200\text{mA}$	-	-	0.60	V
Reverse Current	$I_R$	$V_R = 10\text{V}$	-	-	1.0	$\mu\text{A}$



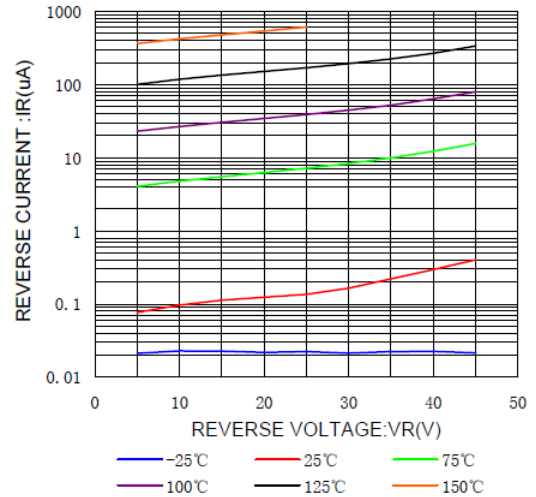
## TYPICAL CHARACTERISTICS

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

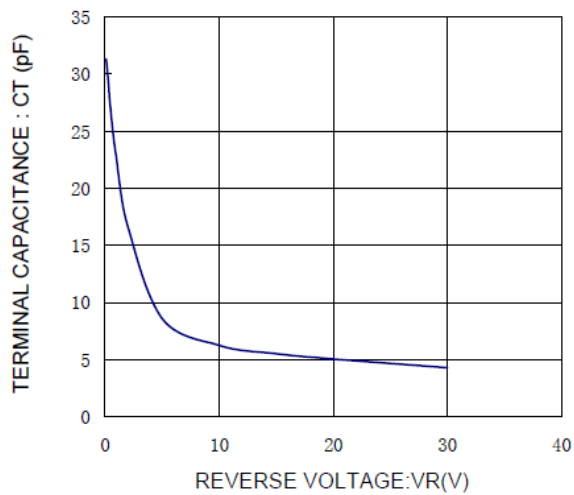
### 1. Forward Characteristics



### 2. Reverse Characteristics



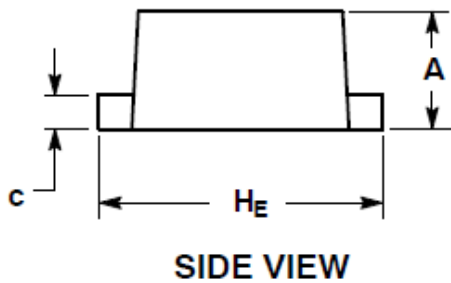
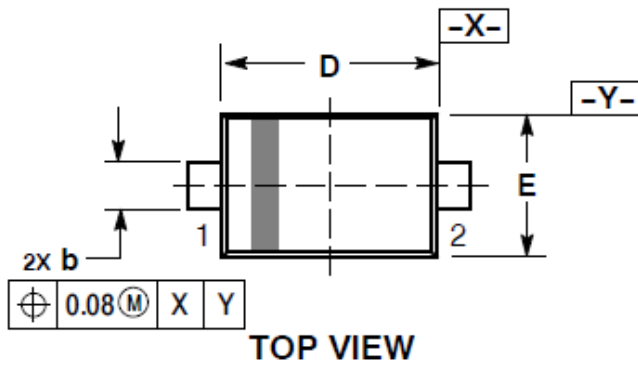
### 3. $V_R$ - $C_T$ Characteristics



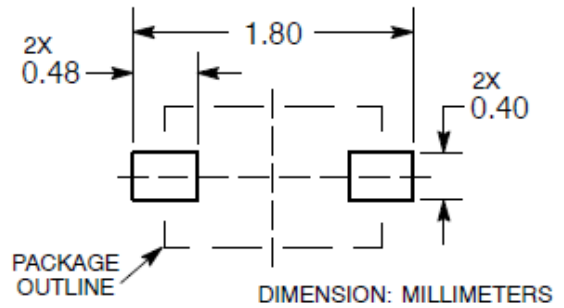


**PACKAGE INFORMATION**

Dimension in SOD-523 Package (Unit: mm)



**RECOMMENDED SOLDERING FOOTPRINT\***



DIM	MIN	MAX
A	0.50	0.70
b	0.25	0.35
c	0.07	0.20
D	1.10	1.30
E	0.70	0.90
H <sub>E</sub>	1.50	1.70
L	0.30 REF	
L2	0.15	0.25



## IMPORTANT NOTICE

AiT Semiconductor Inc. (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Semiconductor Inc.'s integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or severe property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Semiconductor Inc. assumes to no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.