



DESCRIPTION

The RB521S-40 is available in SOD-523 Package

FEATURES

- Extremely small surface mounting type. (SOD-523)
- $I_O=200\text{mA}$ guaranteed despite the size. Low V_F .
- Available in SOD-523 Package

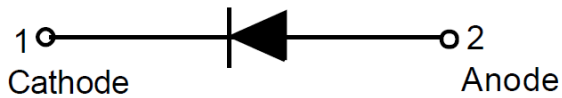
ORDERING INFORMATION

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

APPLICATIONS

- Low current rectification and high speed switching

PIN DESCRIPTION



CONSTRUCTION

- Silicon epitaxial planar



ABSOLUTE MAXIMUM RATINGS

T_A = 25°C

V _R , DC Reverse Voltage	40V
I _O , Mean Rectifying Current	200mA
I _{FSM} , Peak Forward Surge Current*	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.

*60Hz for 1

ELECTRICAL CHARACTERISTICS

T_A = 25°

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F =10mA	0.16	-	0.30	V
		I _F =100mA	0.31	-	0.45	
		I _F =200mA	0.37	-	0.52	
Reverse Current	I _R	V _R =10V	-	-	20	μA
		V _R =40V	-	-	90	
ESD Break Down Voltage	ESD	C=100pF, R=1.5kΩ forward and reverse:1 time	8	-	-	kV

ELECTRICAL CHARACTERISTIC CURVES

Figure 1. V_F - I_F CHARACTERISTICS

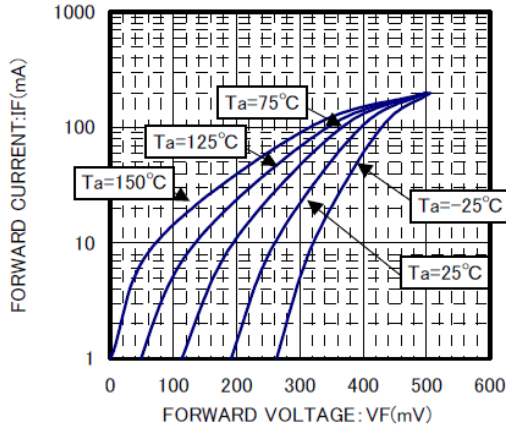


Figure 2. V_R - I_R CHARACTERISTICS

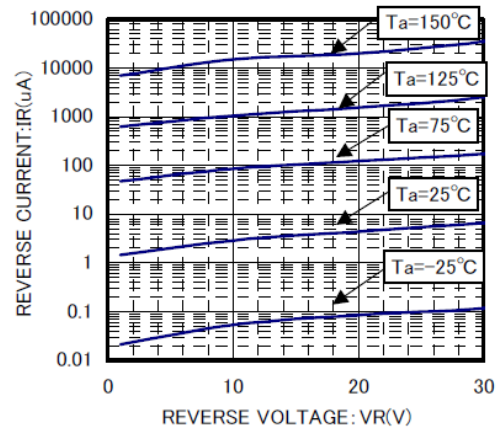


Figure 3. V_R - C_T CHARACTERISTICS

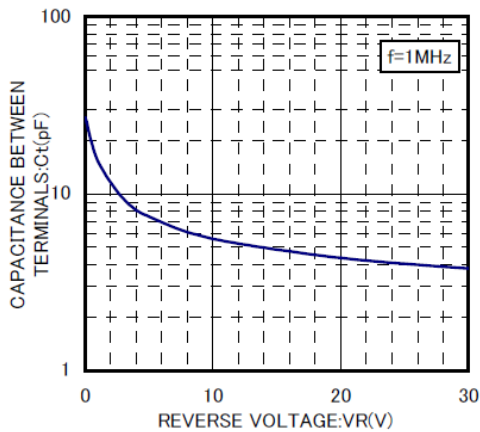


Figure 4. V_F DISPERSION MAP

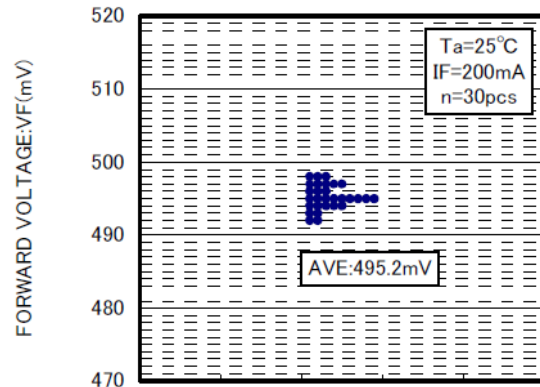


Figure 5. I_R DISPERSION MAP

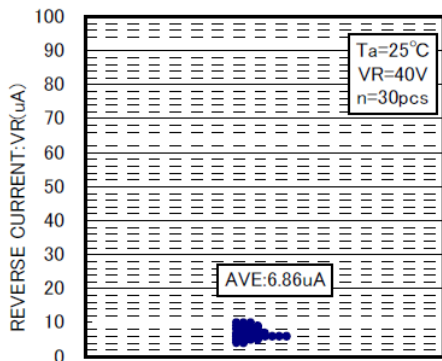


Figure 6. C_T DISPERSION MAP

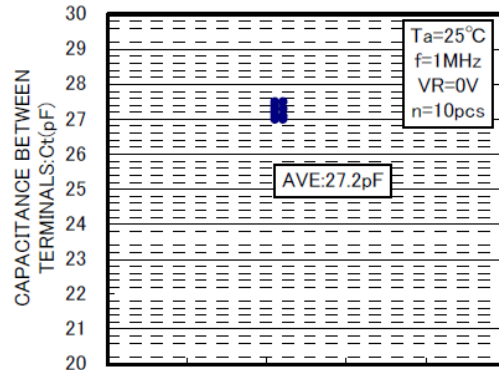


Figure 7. IFSM DISPERSION MAP

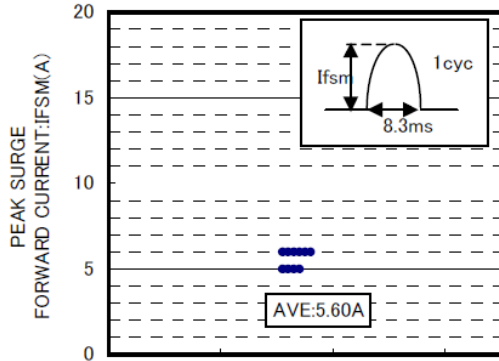


Figure 8. IFSM-CYCLE CHARACTERISTICS

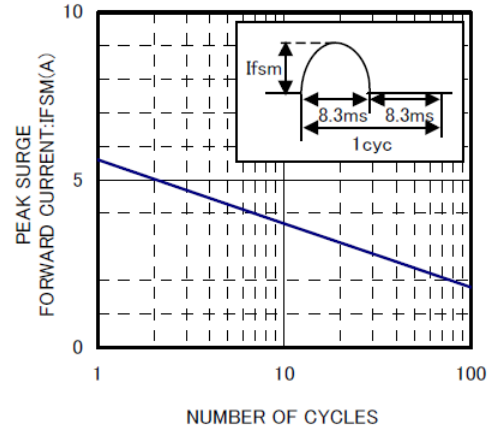


Figure 9. IFSM-t CHARACTERISTICS

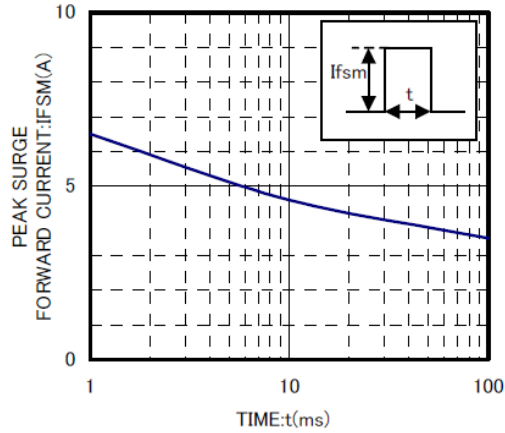


Figure 10. Rth-t CHARACTERISTICS

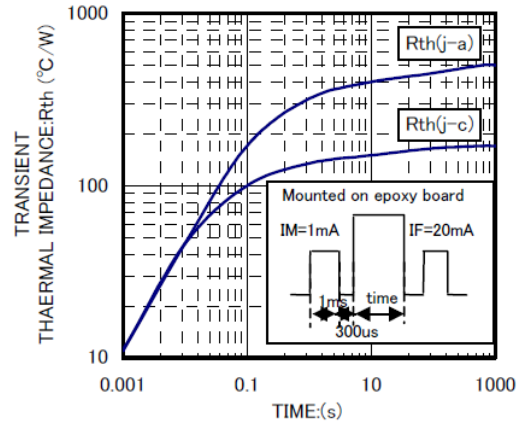


Figure 11. Io-Pf CHARACTERISTICS

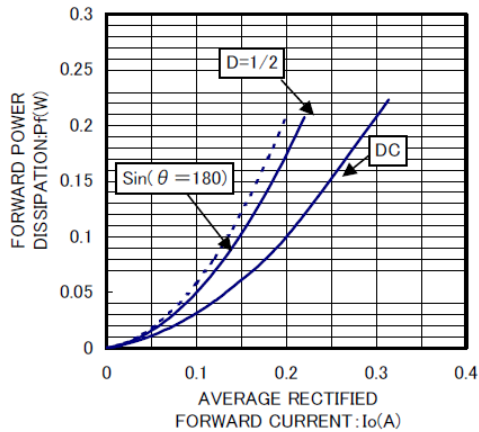


Figure 12. VR-PR CHARACTERISTICS

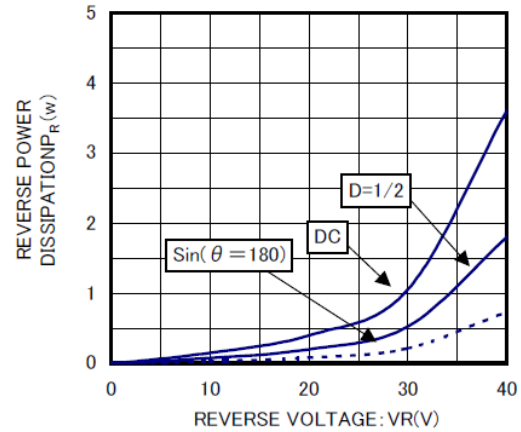


Figure 13. Derating Curve \hat{I}_o (Io-Ta)

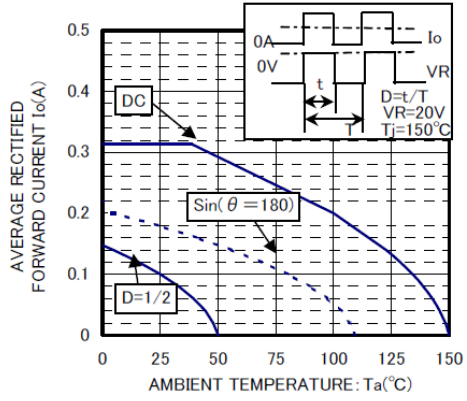
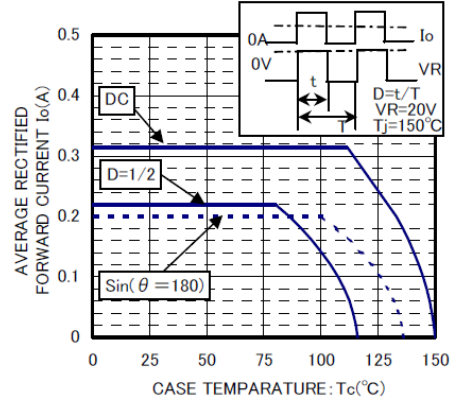


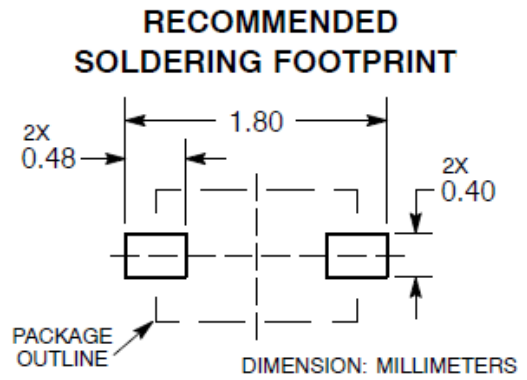
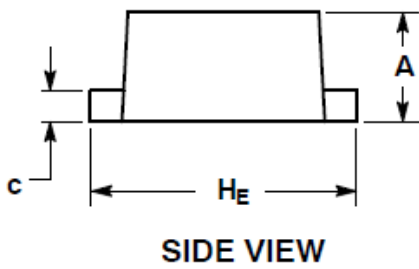
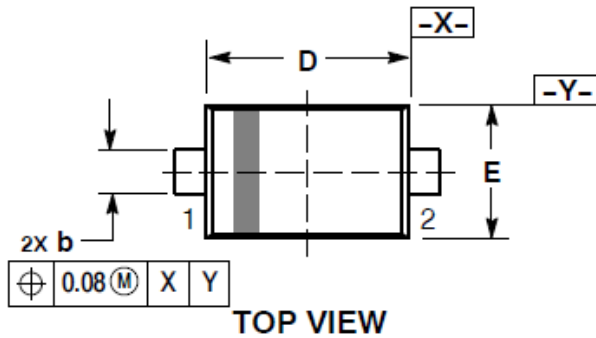
Figure 14. Derating Curve \hat{I}_o (Io-Tc)





PACKAGE INFORMATION

Dimension in SOD-523 Package (Unit: mm)



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
HE	1.50	1.70
L	0.30 REF	
L2	0.15	0.25



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