



RB520S40-AU

SURFACE MOUNT SCHOTTKY BARRIER DIODES

Voltage 40 V **Current** 0.25 A

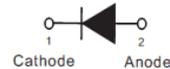
Features

- Low Forward Voltage Drop
- Negligible Reverse Recovery Time
- Low Reverse Capacitance
- Ultra-Small Mount Package
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

- Case: SOD-523 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00005 ounces, 0.0014 grams

SOD-523



Maximum Ratings and Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum Rms Voltage	V_{RMS}	28	V
Maximum Dc Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Current	$I_{F(AV)}$	0.25	A
Peak Forward Surge Current : 1 s Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	1	A
Typical Junction Capacitance Measured at 1 MHZ And Applied $V_R = 0$ V	C_J	30	pF
Typical Thermal Resistance	$R_{\theta JA}^{(1)}$	667	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55~125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~125	$^\circ\text{C}$



RB520S40-AU

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 20\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.37	V
		$I_F = 200\text{ mA}, T_J = 25^\circ\text{C}$	-	-	0.6	
		$I_F = 20\text{ mA}, T_J = 125^\circ\text{C}$	-	0.21	-	
		$I_F = 200\text{ mA}, T_J = 125^\circ\text{C}$	-	0.49	-	
Reverse Current	$I_R^{(2)}$	$V_R = 10\text{ V}, T_J = 25^\circ\text{C}$	-	-	1	uA
		$V_R = 30\text{ V}, T_J = 25^\circ\text{C}$	-	-	5	
		$V_R = 40\text{ V}, T_J = 125^\circ\text{C}$	-	0.6	-	mA
Reverse Recovery Time	T_{RR}	$I_F = I_R = 200\text{mA},$ $I_{RR} = 0.1 \times I_R,$ $R_L = 100\Omega, T_J = 25^\circ\text{C}$	-	10	-	ns

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Short duration pulse test used to minimize self-heating effect



RB520S40-AU

TYPICAL CHARACTERISTIC CURVES

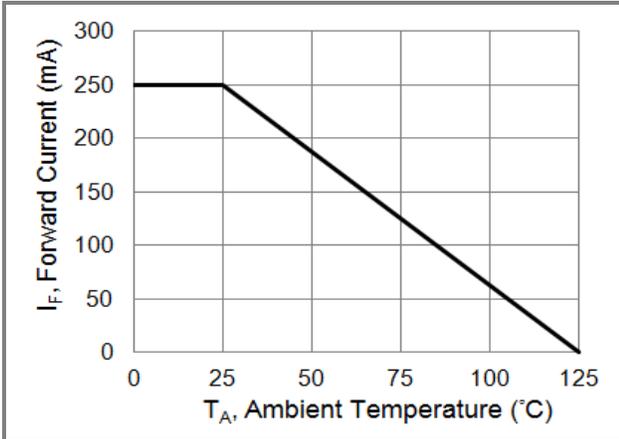


Fig.1 Forward Current Derating Curve

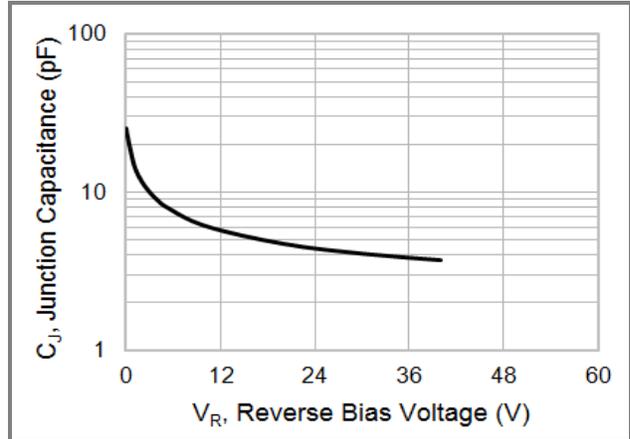


Fig.2 Typical Junction Capacitance

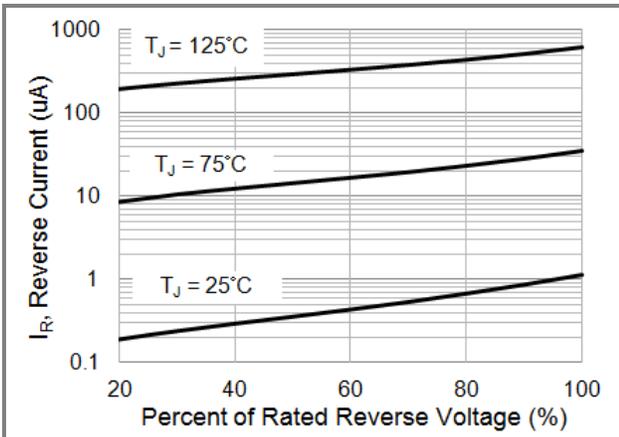


Fig.3 Typical Reverse Characteristics

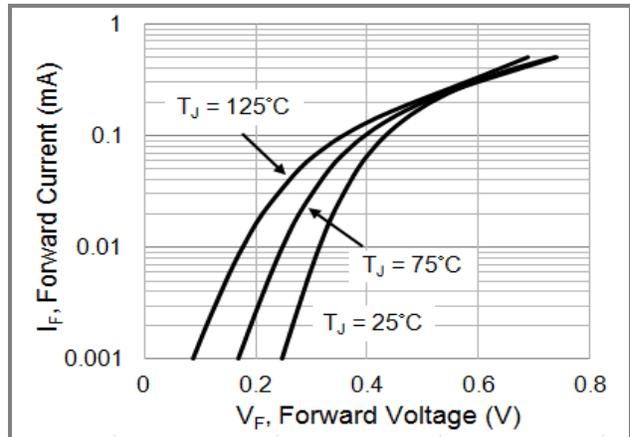


Fig.4 Typical Forward Characteristics

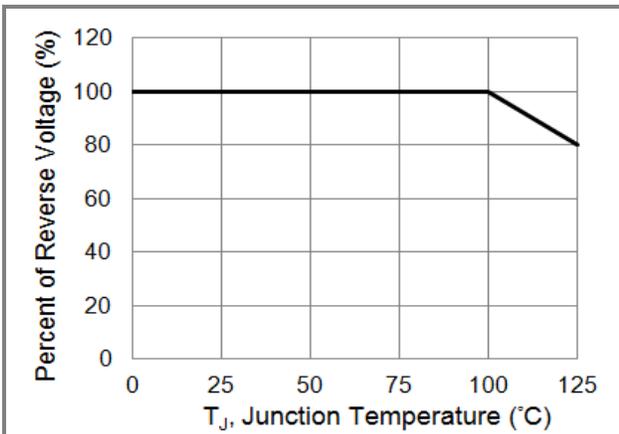


Fig.5 Operating Temperature Derating Curve

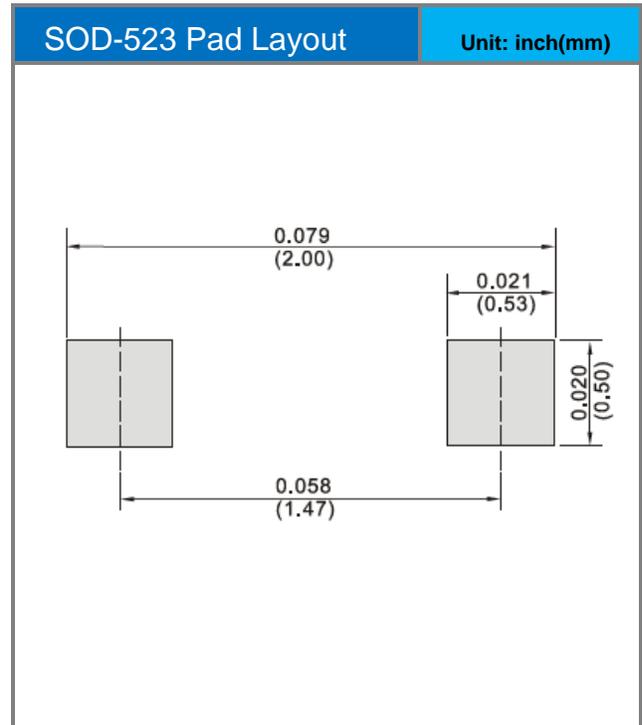
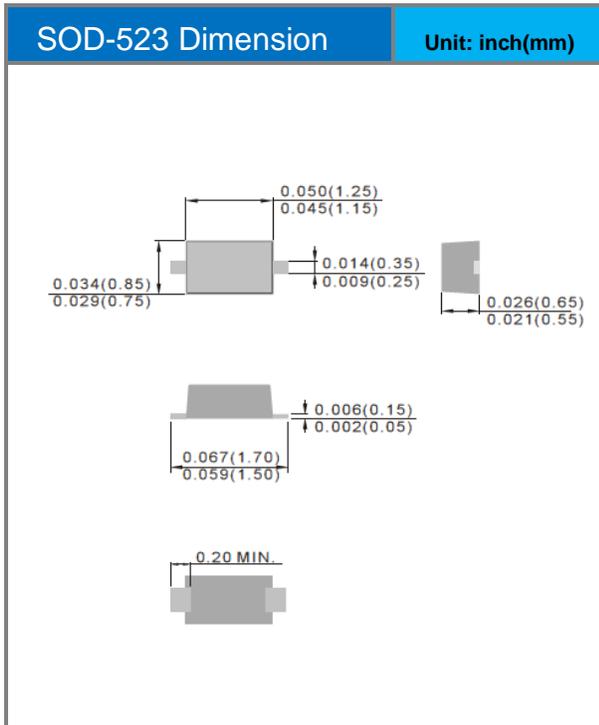


RB520S40-AU

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
RB520S40-AU_R1_000A1	SOD-523	5K / 7" Reel	22	Halogen free

Packaging Information & Mounting Pad Layout





RB520S40-AU

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Panjit:](#)

[RB520S40-AU_R1_000A1](#) [RB520S40-AU_R2_000A1](#)