



### **SCHOTTKY BARRIER RECTIFIER**

Voltage 40 V Current 0.3 A

#### **Features**

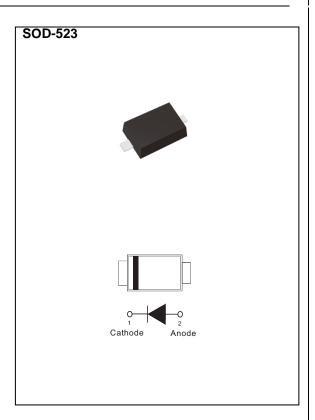
- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

#### **Mechanical Data**

• Case: SOD-523 Package

• Terminals: Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.00005 ounces, 0.0014 grams



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

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum Rms Voltage	V <sub>RMS</sub>	28	V
Maximum Dc Blocking Voltage	$V_{DC}$	40	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	0.3	Α
Peak Forward Surge Current: 8.3 ms Single Half Sine- Wave Superimposed On Rated Load	I <sub>FSM</sub>	0.5	Α
Typical Junction Capacitance  Measured at 1 MHZ And Applied $V_R = 0 \text{ V}$	CJ	2	pF
Typical Thermal Resistance	R <sub>θJA</sub> <sup>(1)</sup>	710	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55~125	°C
Storage Temperature Range	T <sub>STG</sub>	-55~125	°C





## **Electrical Characteristics** (T<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V <sub>F</sub>	$I_F = 1 \text{ mA}, T_J = 25 ^{\circ}\text{C}$	-	ı	0.37	V
		I <sub>F</sub> = 1 mA, T <sub>J</sub> = 100 °C	-	0.23	-	
Reverse Current	I <sub>R</sub> <sup>(2)</sup>	$V_R = 30 \text{ V}, T_J = 25 ^{\circ}\text{C}$	-	-	0.5	uA
		$V_R = 40 \text{ V}, T_J = 25 ^{\circ}\text{C}$	-	-	1	
		$V_R = 40 \text{ V}, T_J = 100 ^{\circ}\text{C}$	-	10	-	

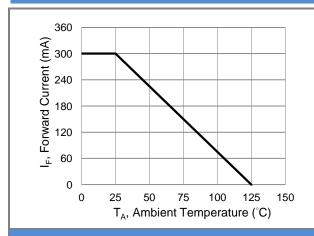
#### NOTES:

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

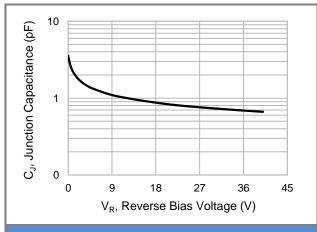




#### **TYPICAL CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

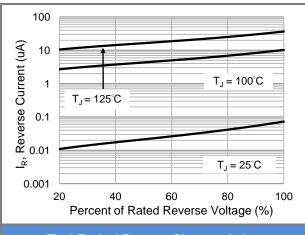
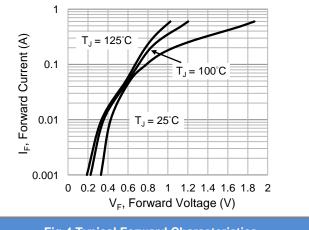
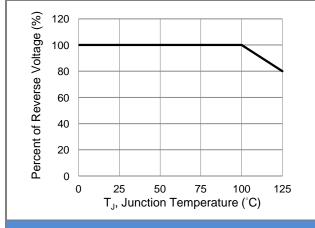


Fig.3 Typical Reverse Characteristics



**Fig.4 Typical Forward Characteristics** 



**Fig.5 Operating Temperature Derating Curve** 

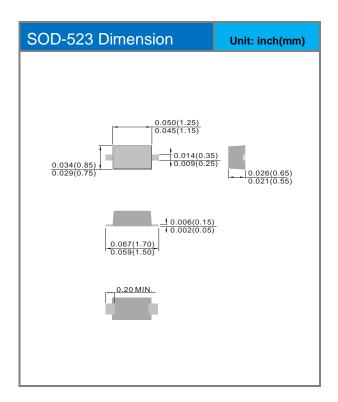


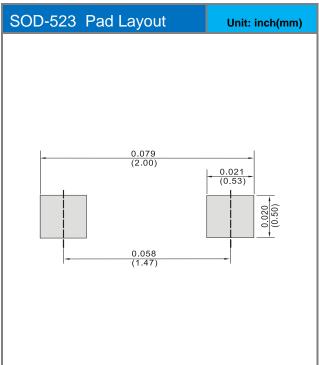


### **Part No Packing Code Version**

Part No Packing Code	Package Type	Packing Type	Marking	Version
RB751S40-AU_R1_000A1	SOD-523	5K pcs / 7" reel	51	Halogen free

### **Packaging Information & Mounting Pad Layout**









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