

BAT41ES

Surface Mount Schottky Diodes

Voltage	100 V	Current	200 mA
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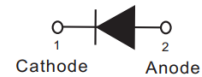
Features

- Extremely high switching speed
- Surface mount package ideally suited for automatic insertion
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

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

SOD-523



Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	100	V
Maximum RMS Voltage	V _{RMS}	70	V
Maximum DC Blocking Voltage	V _{DC}	100	V
Maximum Average Forward Rectified Current	I _{F(AV)}	0.2	A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	1	A
Typical Thermal Resistance ^(Note 1)	R _{θJA}	710	°C/W
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

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Electrical Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Breakdown Voltage	V _{BR}	I _R = 50 uA, T _J = 25 °C	100	-	-	V
Forward Voltage	V _F	I _F = 1 mA, T _J = 25 °C	-	-	0.45	V
		I _F = 200 mA, T _J = 25 °C	-	-	1	
Reverse Current ^(Note 2)	I _R	V _R = 50 V, T _J = 25 °C	-	-	0.1	uA
		V _R = 50 V, T _J = 100 °C	-	-	20	
Typical Junction Capacitance	C _J	1Vdc Bias f = 1 MHz	-	3	10	pF

NOTES :

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

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TYPICAL CHARACTERISTIC CURVES

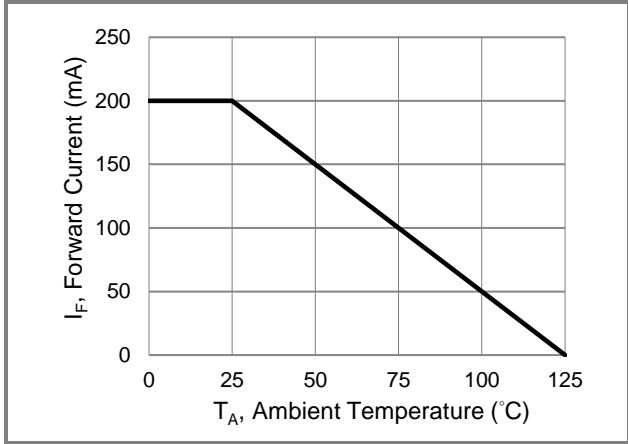


Fig.1 Forward Current Derating Curve

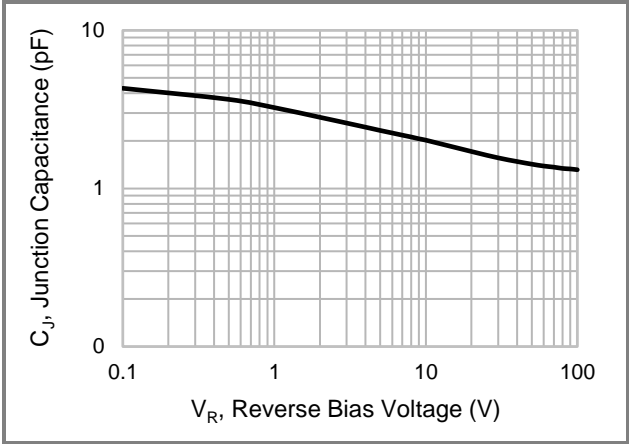


Fig.2 Typical Junction Capacitance

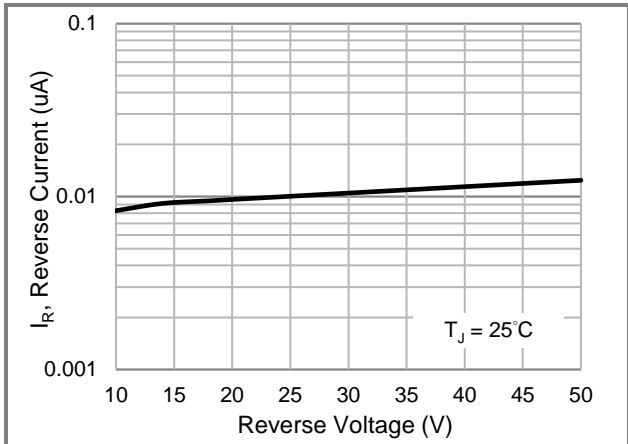


Fig.3 Typical Reverse Characteristics

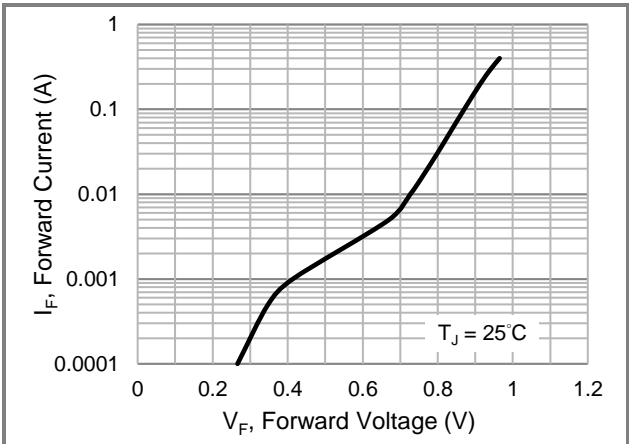


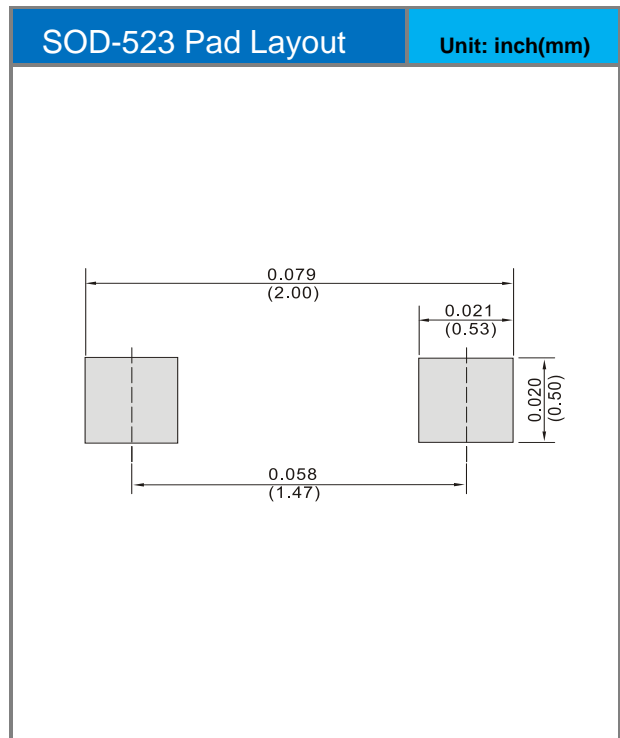
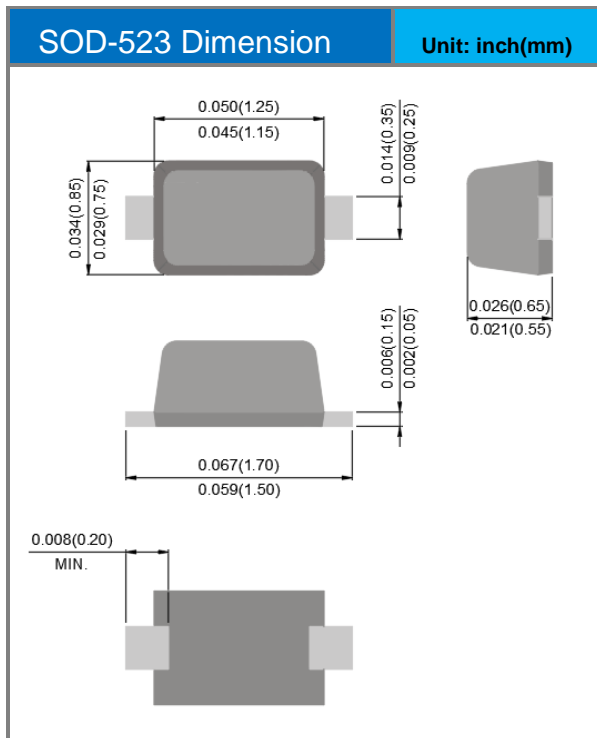
Fig.4 Typical Forward Characteristics

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BAT41ES	SOD-523	5K pcs / 7" reel	AB

Packaging Information & Mounting Pad Layout



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