



BAT721AC

SCHOTTKY BARRIER (DOUBLE) DIODES

Voltage

40 V

Current

0.4 A

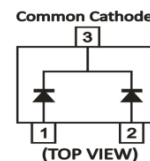
Features

- Ultra high switching speed
- Low forward voltage
- Guard ring protected
- Small plastic SMD package
- Ultra high-speed switching
- Voltage clamping
- Protection circuits
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: SOT-23 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounces, 0.0084 grams

SOT-23



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	$I_{F(AV)}$	0.4	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load Per Diode	I_{FSM}	1	A
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$	C_J	7	pF
Typical Thermal Resistance Per Diode	$R_{\theta JA}^{(1)}$	350	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55~125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$



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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 0.2\text{ A}, T_J = 25^\circ\text{C}$	-	0.45	-	V
		$I_F = 0.4\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.65	
		$I_F = 0.2\text{ A}, T_J = 125^\circ\text{C}$	-	0.43	-	
		$I_F = 0.4\text{ A}, T_J = 125^\circ\text{C}$	-	0.62	-	
Reverse Current	$I_R^{(2)}$	$V_R = 32\text{ V}, T_J = 25^\circ\text{C}$	-	8	-	μA
		$V_R = 40\text{ V}, T_J = 25^\circ\text{C}$	-	-	50	μA
		$V_R = 40\text{ V}, T_J = 125^\circ\text{C}$	-	2.5	-	mA

NOTES:

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



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TYPICAL CHARACTERISTIC CURVES

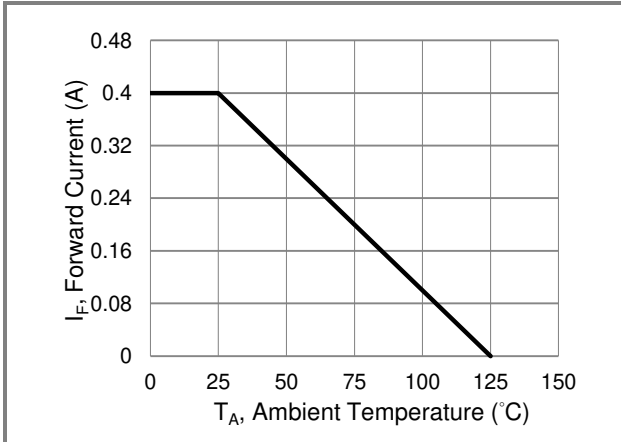


Fig.1 Forward Current Derating Curve

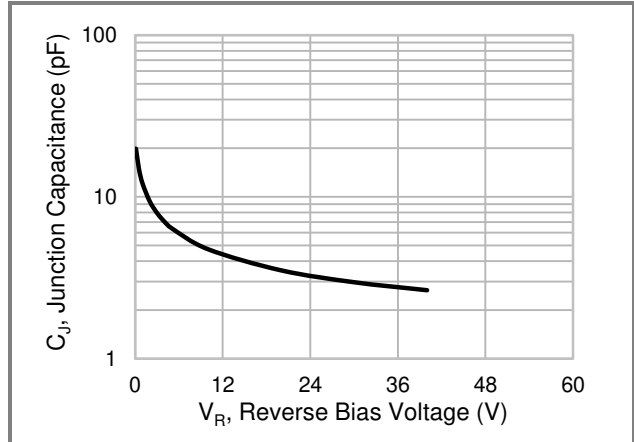


Fig.2 Typical Junction Capacitance

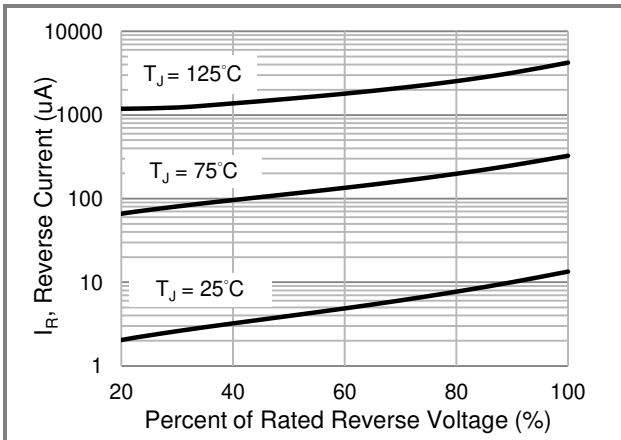


Fig.3 Typical Reverse Characteristics

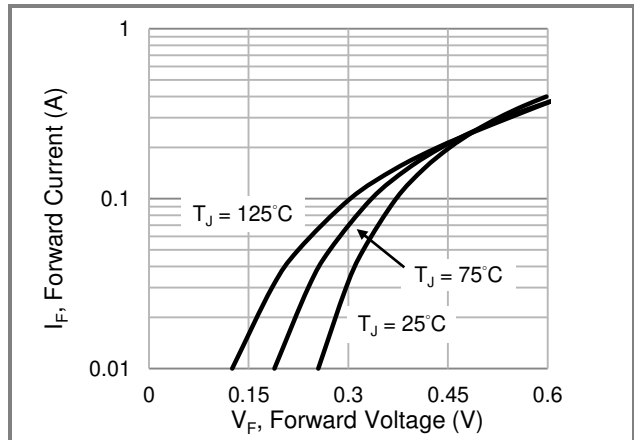


Fig.4 Typical Forward Characteristics

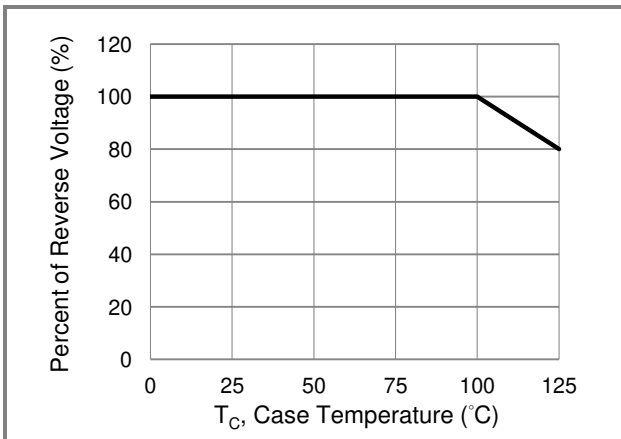


Fig.5 Operating Temperature Derating Curve

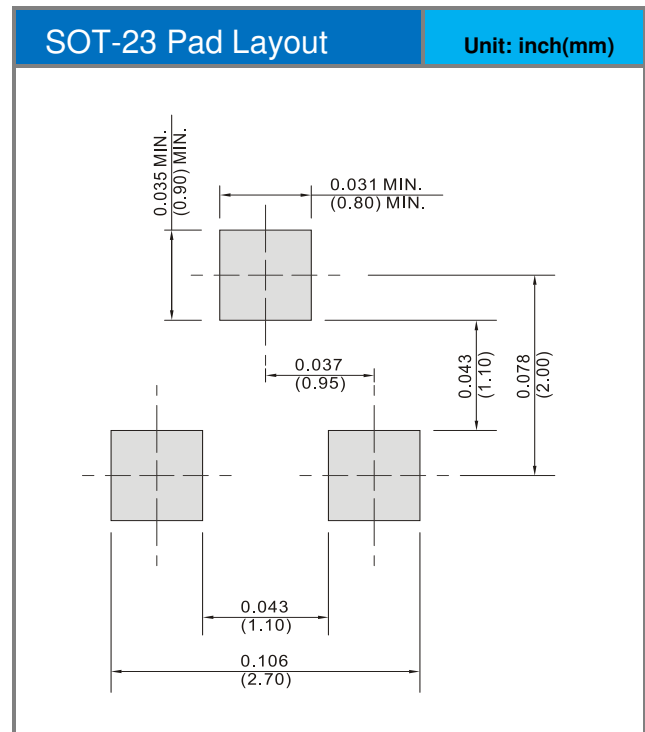
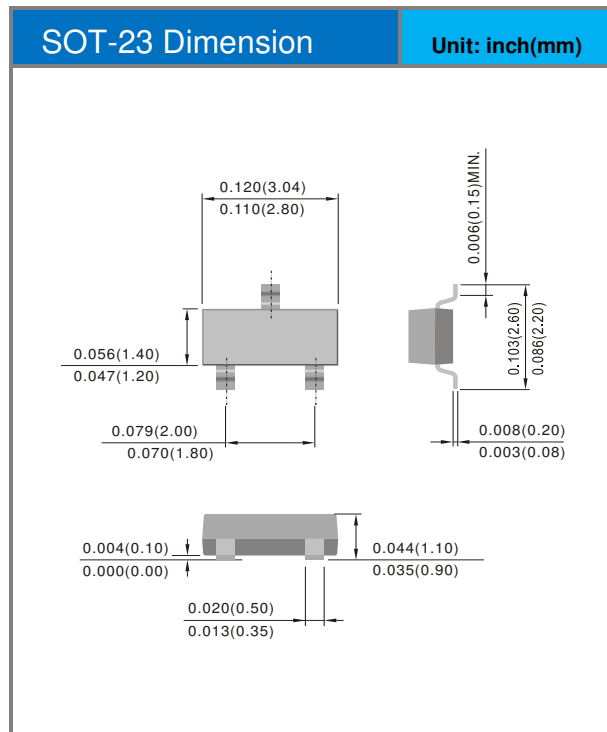


BAT721AC

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
BAT721AC_R1_00001	SOT-23	3K pcs / 7" reel	TAC	Halogen free

Packaging Information & Mounting Pad Layout





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