

BAT721C / BAT721S

SCHOTTKY BARRIER (DOUBLE) DIODES

VOLTAGE 40 Volt **CURRENT** 200 mA

FEATURES

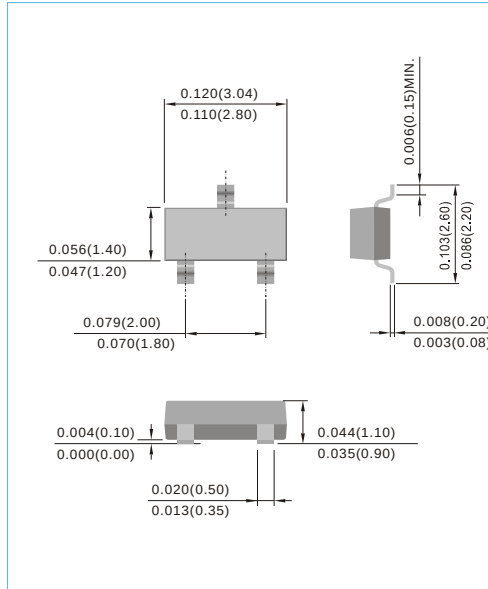
- Ultra high switching speed
- Low forward voltage
- Guard ring protected
- Small plastic SMD package
- Ultra high-speed switching
- Voltage clamping
- Protection circuits
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

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

SOT-23

Unit : inch(mm)



LIMITING VALUES

PARAMETER	CONDITIONS	SYMBOL	MIN.	MAX.	UNIT
Continuous reverse voltage		V_R	-	40	V
Continuous forward current		I_F	-	200	mA
Non repetitive peak forward current	tp=8.3ms half sinewave	I_{FSM}	-	1	A
Storage temperature range		T_{STG}	-65	+150	°C
Junction temperature		T_J	-	125	°C

1. In accordance with the Absolute Maximum Rating System (IEC 134).

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	BAT721C	BAT721S	UNIT
Marking code	-	72C	72S	-
Thermal resistance from junction to ambient	$R_{\theta JA}$	556		°C/W
Circuit fight	-	Common Cathode	Series	-

2. Refer to SOT-23 standard mounting conditions.

3. Mount on FR-5 1x0.75x0.062 in.

COMMON CATHODE

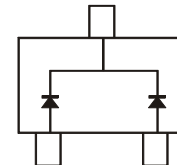


Fig.16(TOP VIEW)

SERIES

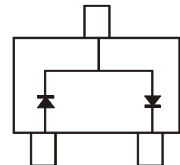


Fig.17(TOP VIEW)

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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified.

PARAMETER	SYMBOL	CONDITIONS	MIN.	MAX.	UNIT
Continuous forward voltage	V _F	I _F =10mA I _F =100mA I _F =200mA	-	300 420 550	mV
Continuous reverse current	I _R	V _R =30V	-	15	μA
		V _R =30V, T _J =100°C	-	3	mA
Diode capacitance	C _d	f=1MHz, V _R =0	40	50	pF

4. Pulse test : tp<300μs, δ < 0.02.

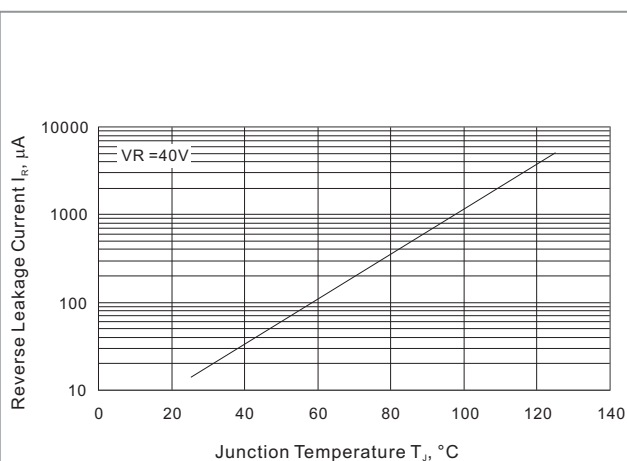


FIG. 1 Reverse Leakage Current vs. Junction Temperature

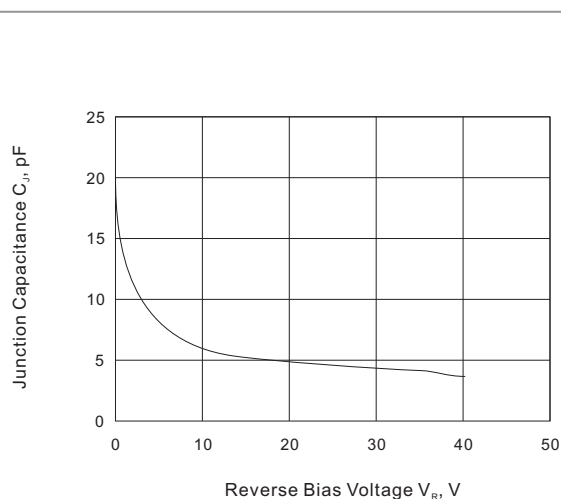


FIG. 2 Typical Junction Capacitance under Bias

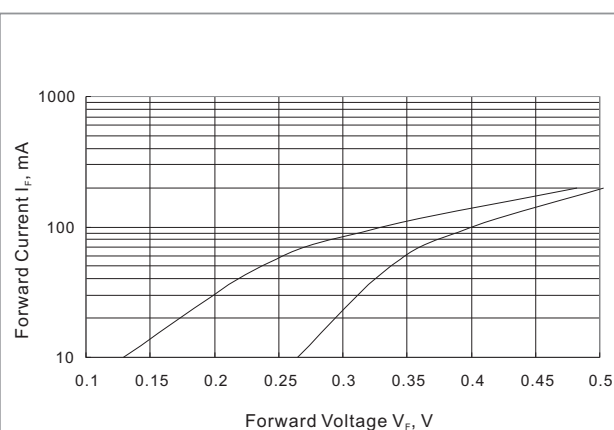


FIG. 3 Typical Forward Voltage

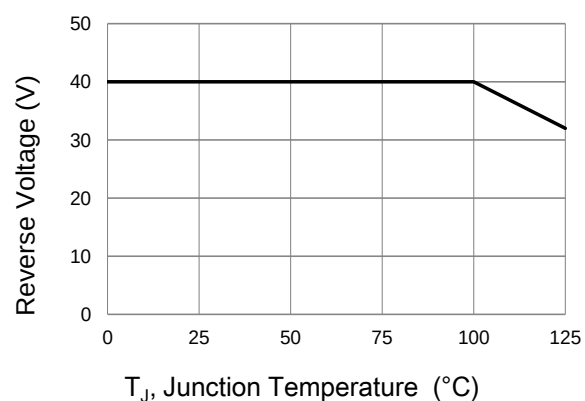


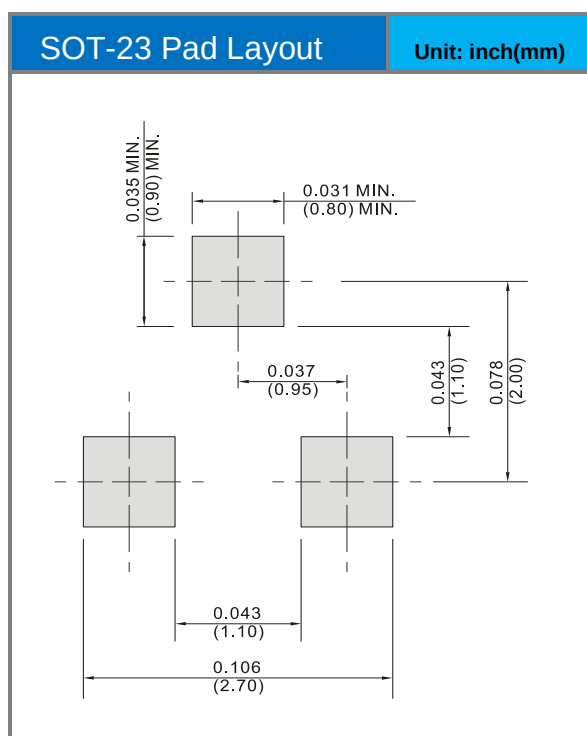
Fig.4 Operating Temperature Derating Curve

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BAT721C	SOT-23	3K pcs / 7" reel	72C
BAT721C	SOT-23	12K pcs / 13" reel	72C
BAT721S	SOT-23	3K pcs / 7" reel	72S
BAT721S	SOT-23	12K pcs / 13" reel	72S

Mounting Pad Layout



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