

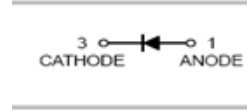
Features

- Ultra high switching speed
- Guard ring protected.
- Low forward voltage
- Small plastic SMD package
- RoHS compliant with Halogen-free

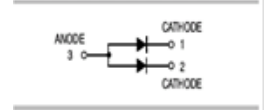
HF

Mechanical Data

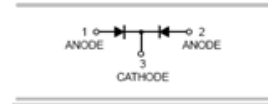
- Case: SOT-23
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208



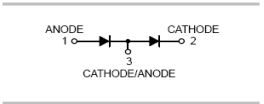
BAT721



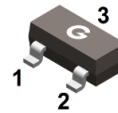
BAT721A



BAT721C



BAT721S



SOT-23

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAT721	SOT-23	3000 pcs / Tape & Reel	L7
BAT721A	SOT-23	3000 pcs / Tape & Reel	L8
BAT721C	SOT-23	3000 pcs / Tape & Reel	L9
BAT721S	SOT-23	3000 pcs / Tape & Reel	L0

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
DC Reverse Voltage	V _R	40	V
RMS Reverse Voltage	V _{RMS}	28	V
Maximum Average Forward Output Current	I _{F(AV)}	0.2	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I _{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	200	mW
Thermal Resistance Junction-to-Air ^{*1}	R _{θJA}	270	°C/W
Thermal Resistance Junction-to-Case ^{*1}	R _{θJC}	170	°C/W
Thermal Resistance Junction-to-Lead ^{*1}	R _{θJL}	200	°C/W
Operating junction Temperature	T _J	-55 ~ +125	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Note 1: The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	40	-	-	V
Forward Voltage	V_F	$I_F = 10\text{mA}$	-	-	0.30	V
		$I_F = 100\text{mA}$	-	-	0.42	V
		$I_F = 200\text{mA}$	-	-	0.55	V
Maximum Peak Reverse Current	I_R	$V_R = 30\text{V}, T_J = 25^\circ\text{C}$	-	-	15	μA
		$V_R = 30\text{V}, T_J = 100^\circ\text{C}$	-	-	3	mA
Diode capacitance	C_J	$V_R = 4\text{V}, f = 1\text{MHz}$	-	40	50	pF

Ratings and Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

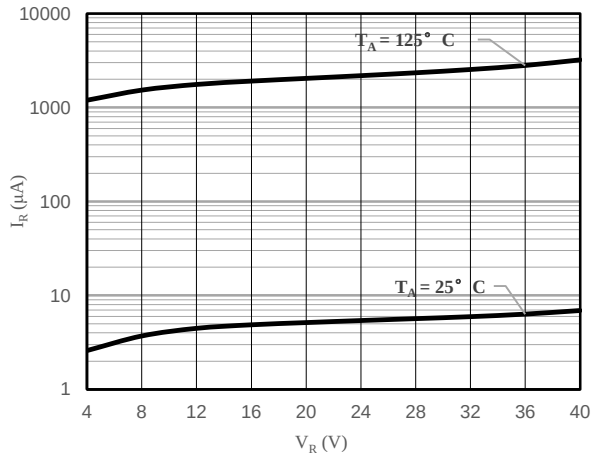


Fig 1 Typical Reverse Characteristic

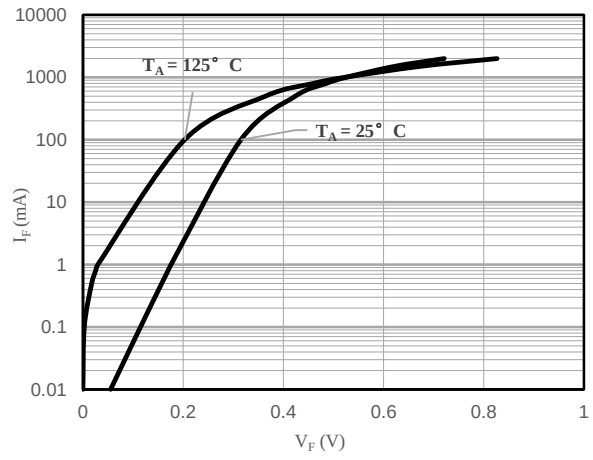


Fig 2 Typical Forward Characteristics

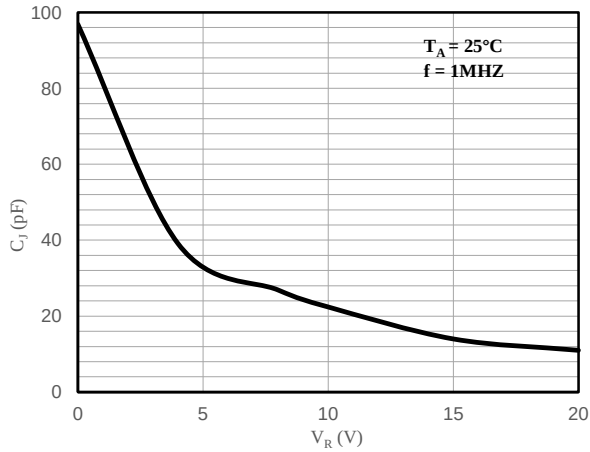


Fig 3 Capacitance Characteristics

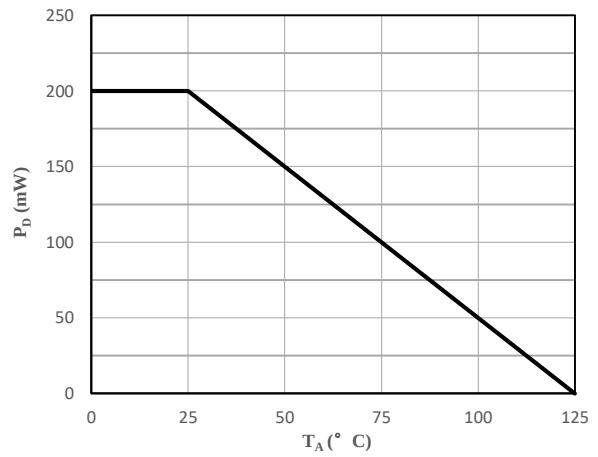
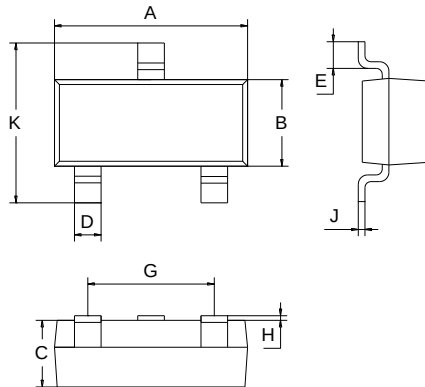


Fig 4 Power Derating Curve

Package Outline Dimensions (Unit: mm)



SOT-23		
Dimension	Min.	Max.
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

Package Outline Dimensions (Unit: mm)

SOT-23

