

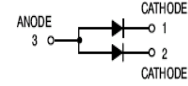


### FEATURES

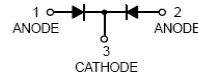
- Ultra high switching speed.
- Low forward voltage.
- Guard ring protected.
- Small plastic SMD package.



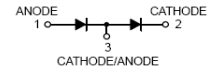
BAT721



BAT721A



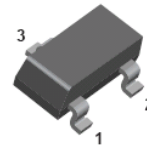
BAT721C



BAT721S

### APPLICATIONS

- Ultra high-speed switching.
- Voltage clamping.
- Protection circuits.



SOT-23

### ORDERING INFORMATION

Type No.	Marking	Package Code
BAT721	L7	SOT-23
BAT721A	L8	SOT-23
BAT721C	L9	SOT-23
BAT721S	L0	SOT-23

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Continuous Reverse Voltage	$V_R$	40	V
Continuous Forward Current	$I_F$	200	mA
Forward surge current	$I_{FSM}$	1	A
	$t_p = 8.3\text{ms half sinewave}$		
Power Dissipation	$P_d$	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	500	°C/W
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{STG}$	-65 to +125	°C

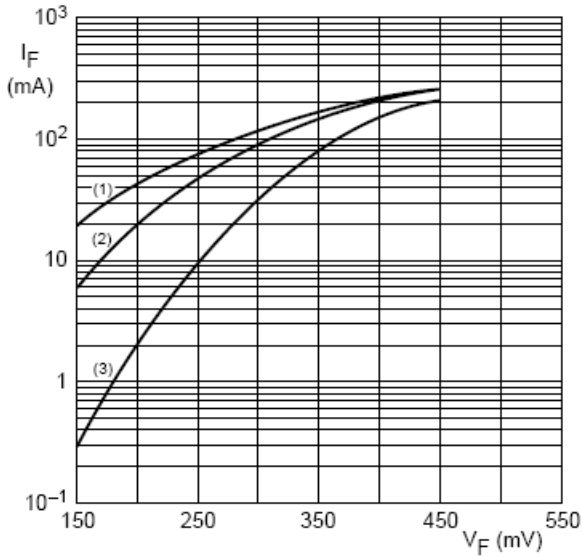


### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)}$	40			V	$I_R=100\mu A$
Forward voltage	$V_F$			0.30	V	$I_F=10mA$
				0.42	V	$I_F=100mA$
				0.55	V	$I_F=200mA$
Reverse current	$I_R$			15	$\mu A$	$V_R=30V$
				3	mA	$V_R=30V T_J=100^\circ C$
Diode Capacitance	$C_D$		40	50	pF	$V_R=0V, f=1MHz$

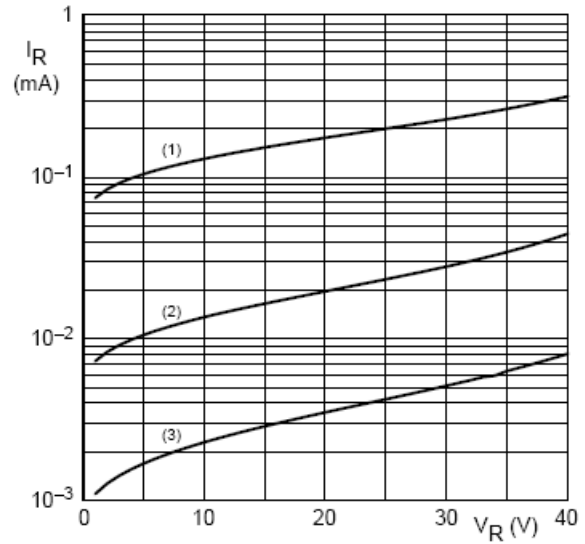


### TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



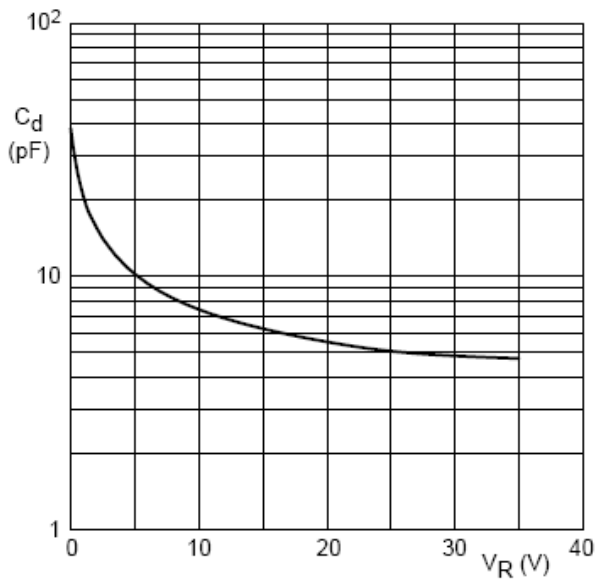
- (1)  $T_{amb} = 125^\circ\text{C}$ .
- (2)  $T_{amb} = 85^\circ\text{C}$ .
- (3)  $T_{amb} = 25^\circ\text{C}$ .

Forward current as a function of forward voltage; typical values.



- (1)  $T_{amb} = 125^\circ\text{C}$ .
- (2)  $T_{amb} = 85^\circ\text{C}$ .
- (3)  $T_{amb} = 25^\circ\text{C}$ .

Reverse current as a function of reverse voltage; typical values.



$f = 1\text{ MHz}$ ;  $T_j = 25^\circ\text{C}$ .

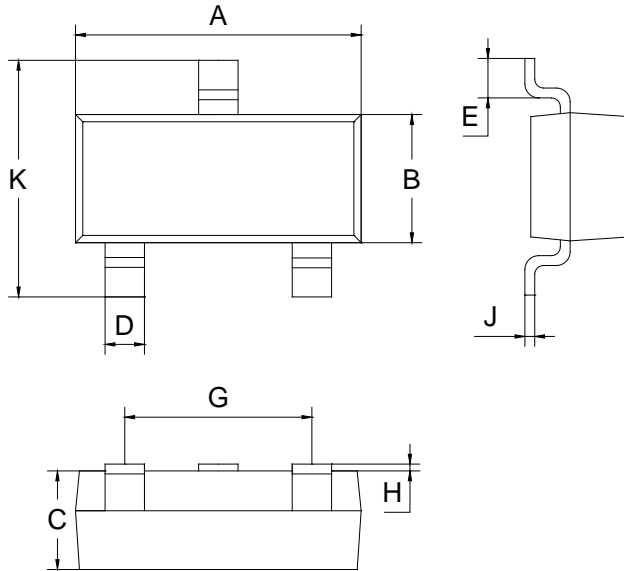
Diode capacitance as a function of reverse voltage; typical values.



### PACKAGE OUTLINE

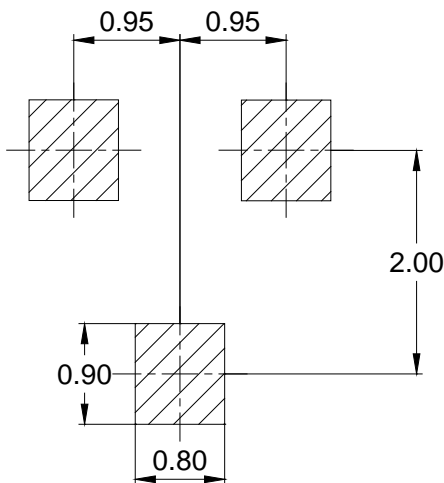
Plastic surface mounted package

SOT-23



SOT-23		
Dim	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
All Dimensions in mm		

### SOLDERING FOOTPRINT



Unit : mm

### PACKAGE INFORMATION

Device	Package	Shipping
BAT721/A/C/S	SOT-23	3000 pcs / Tape & Reel