

Surface Mount Schottky Barrier diode

TBAT721/A/C/SG

FEATURES

- Ultra high switching speed.
- Low forward voltage.
- Guard ring protected.
- Small plastic SMD package.
- Non-Halogen.
- Qualified to AEC-Q101 Standards for High Reliability.

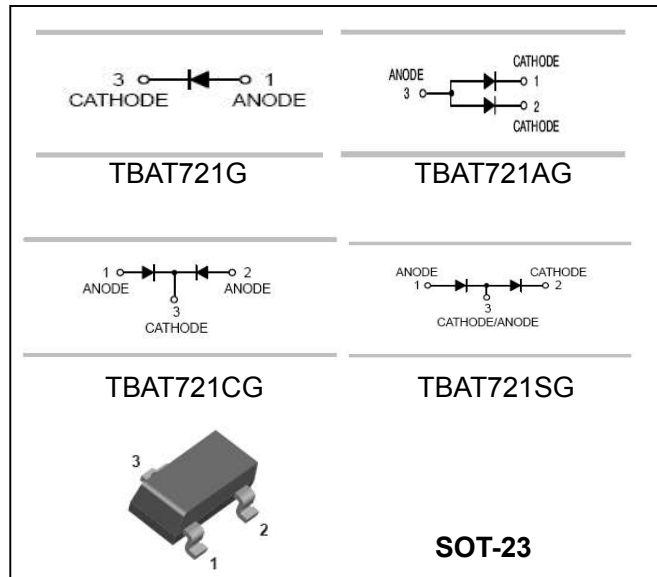


Lead-free

HF

APPLICATIONS

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



ORDERING INFORMATION

Type No.	Marking	Package Code
TBAT721G	L7	SOT-23
TBAT721AG	L8	SOT-23
TBAT721CG	L9	SOT-23
TBAT721SG	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 $t_p = 8.3\text{ms}$ half sinewave	I_{FSM}	1	A
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

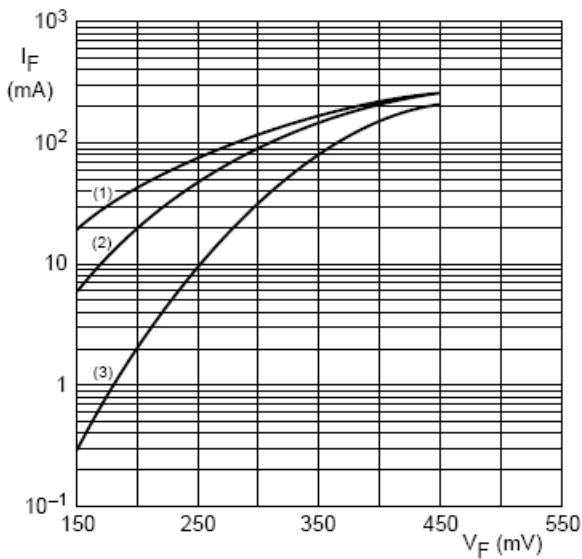
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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

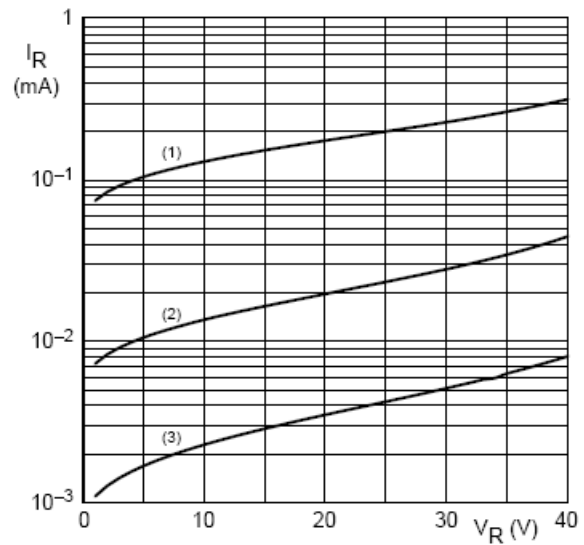
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)}$	40			V	$I_R=100\mu A$
Forward voltage	V_F			0.30	V	$I_F=10mA$
				0.42	V	$I_F=100mA$
				0.55	V	$I_F=200mA$
Reverse current	I_R			15	μA	$V_R=30V$
				3	mA	$V_R=30V T_J=100^\circ C$
Diode Capacitance	C_D		40	50	pF	$V_R=0V,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

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



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

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

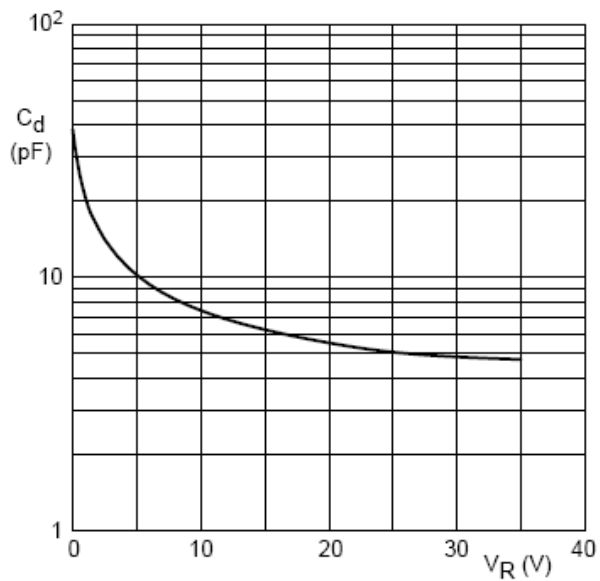


- (1) $T_{amb} = 125^\circ C$.
- (2) $T_{amb} = 85^\circ C$.
- (3) $T_{amb} = 25^\circ C$.

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

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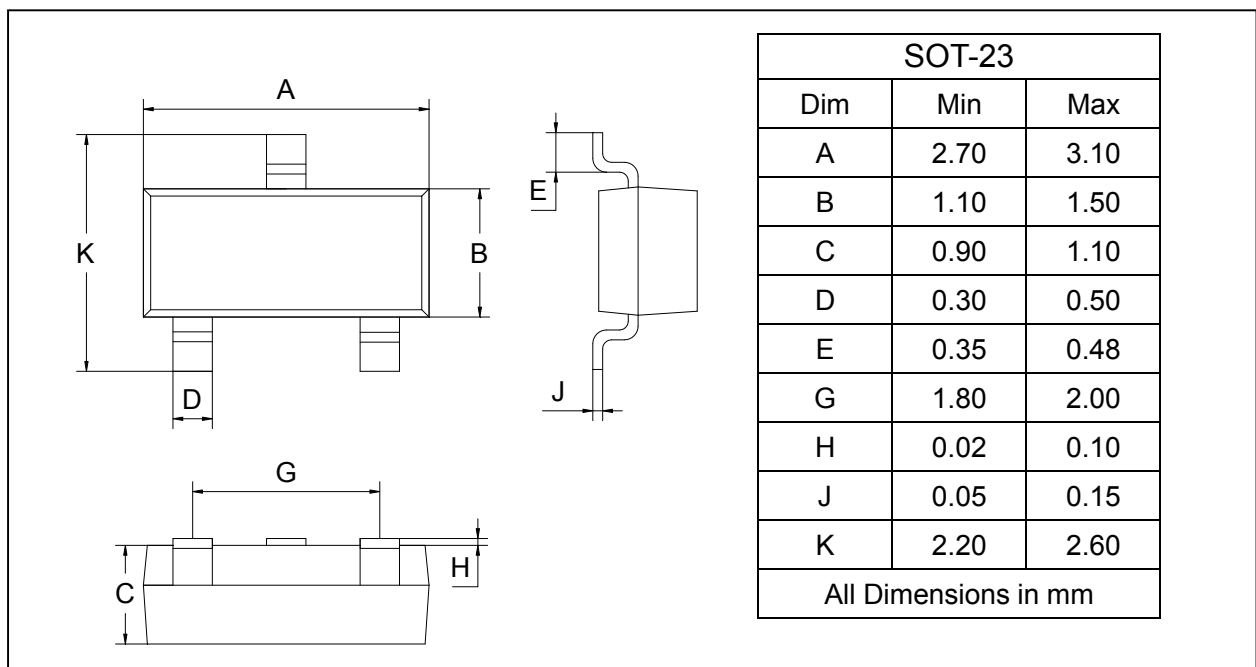
$f = 1 \text{ MHz}; T_j = 25 \text{ }^\circ\text{C}.$

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

PACKAGE OUTLINE

Plastic surface mounted package

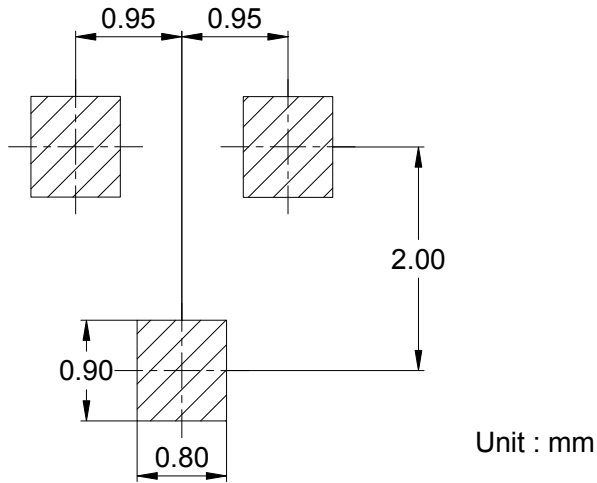
SOT-23



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SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
TBAT721/A/C/SG	SOT-23	3000/Tape&Reel