General Purpose Diode **BAS321**

FEATURES

Lead-free

- Switching speed: max. 50 ns
- General application
- Continuous reverse voltage: max. 200 V
- Repetitive peak reverse voltage: max. 250 V
- Repetitive peak forward current: max. 625 mA.

SOD-323

APPLICATIONS

- General purpose switching in e.g. surface mounted circuits.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS321	A7	SOD-323

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Characteristic	**Symbol**	**value**	**Unit**
Repetitive Peak Reverse Voltage	V_{RRM}	250	V
continuous reverse voltage	V_R	200	V
Average Rectified Output Current	I_o	200	mA
Non-Repetitive Peak Forward Surge Current @t=1.0 μs @t=100us @t=10ms	I_{FSM}	 9 3 1.7	A
Repetitive Peak Forward Surge Current	I_{FRM}	625	mA
Power Dissipation	P_d	300	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	℃/W
Operating and Storage Temperature Rage	T_j,T_{STG}	-65 to +150	℃

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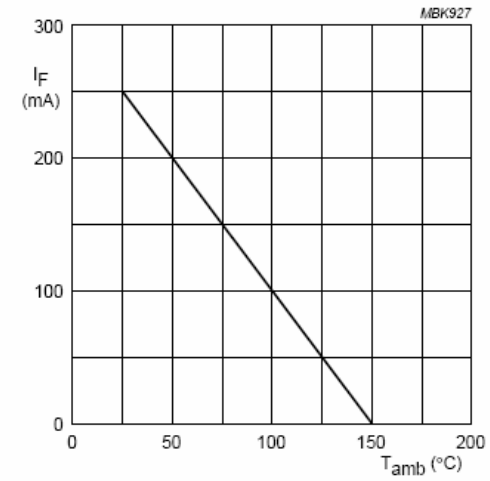
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

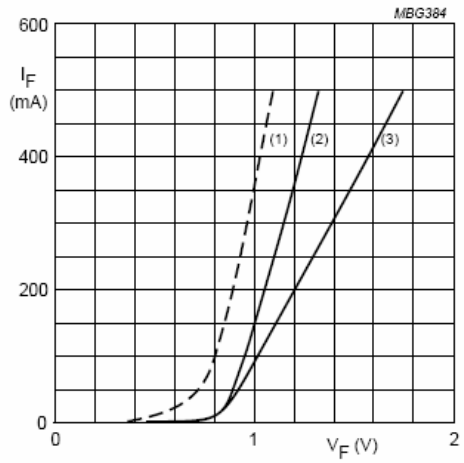
Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	250		V	I_R=100uA
Forward Voltage	V_{FM}	-	1.0 1.25	V	I_F=100mA I_F=200mA
Reverse Current	I_R	-	0.1	μA	V_R=200V
Capacitance between terminals	C_T	-	2	pF	V_R=0,f=1.0MHz
Reverse Recovery Time	t_{rr}	-	50	ns	I_F=I_R=30mA, I_R =3mA,R_L=100Ω

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified



Device mounted on an FR4 printed-circuit board.

Fig.1 Maximum permissible continuous forward current as a function of ambient temperature.



(1) T_j = 150 °C; typical values.
(2) T_j = 25 °C; typical values.
(3) T_j = 25 °C; maximum values.

Fig.2 Forward current as a function of forward voltage.

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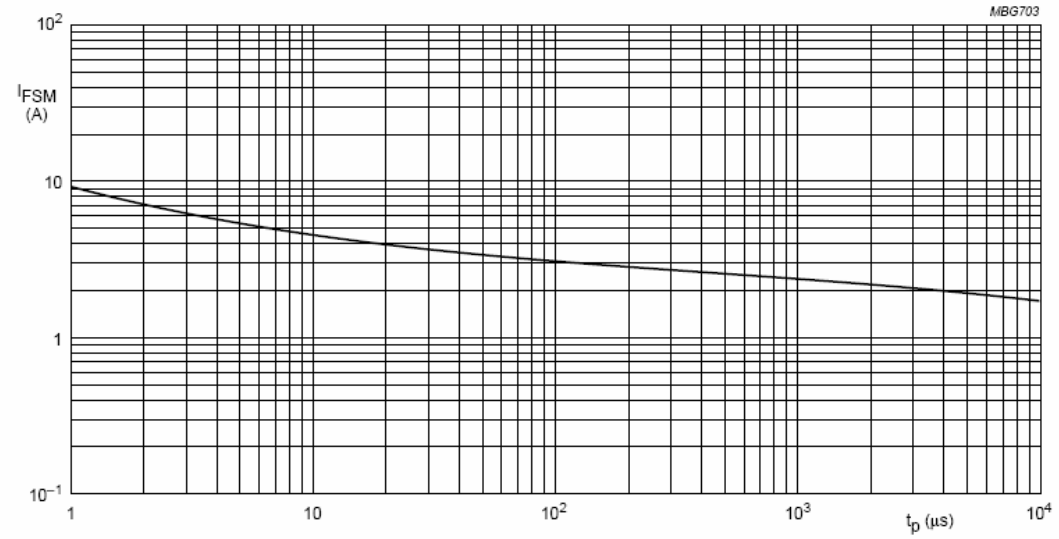
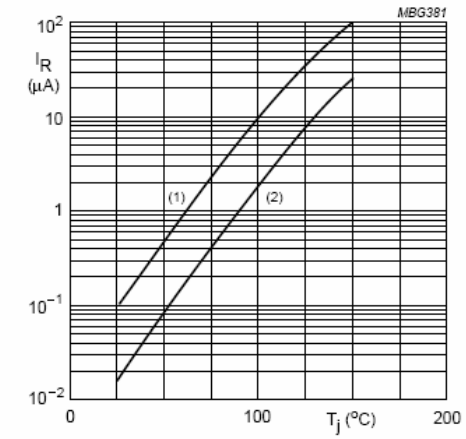


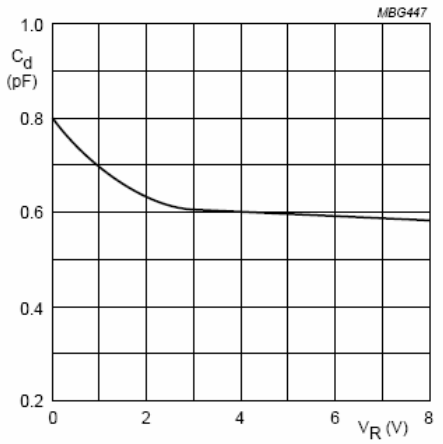
Based on square wave currents.
T_j = 25 °C prior to surge.

Fig.3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.



(1) $V_R = V_{Rmax}$; maximum values.
(2) $V_R = V_{Rmax}$; typical values.

Fig.4 Reverse current as a function of junction temperature.



f = 1 MHz; T_j = 25 °C.

Fig.5 Diode capacitance as a function of reverse voltage; typical values.

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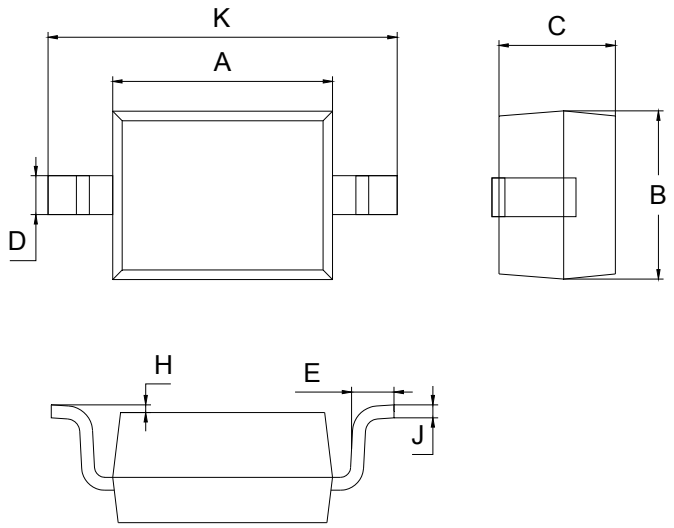
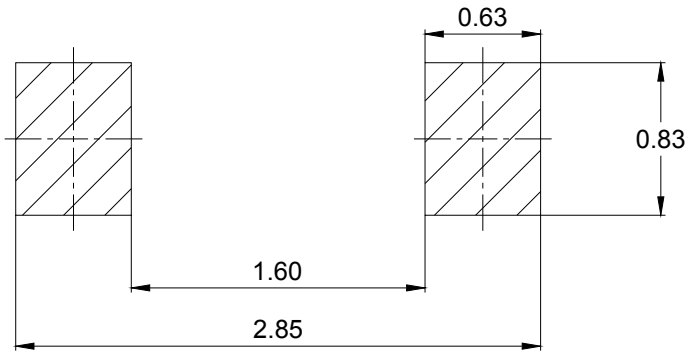
PACKAGE OUTLINE

Plastic surface mounted package SOD-323



SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.9 Typical	
D	0.30 Typical	
E	0.22	0.42
H	0.02	0.1
J	0.1 Typical	
K	2.55	2.75
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit ： mm

PACKAGE INFORMATION

Device	Package	Shipping
BAS321	SOD-323	3000/Tape&Reel