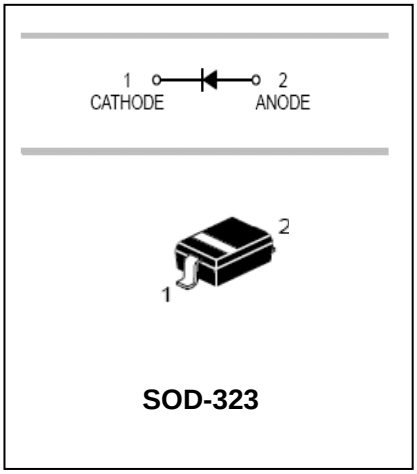
Low-leakage Diode **BAS416**

FEATURES

- Low leakage current: typ. 3 pA
- Switching time: typ. 0.8 μs
- Continuous reverse voltage: max. 75 V
- Repetitive peak reverse voltage: max. 85 V
- Repetitive peak forward current: max. 500 mA.

Lead-free



SOD-323

APPLICATIONS

- Low-leakage current applications in surface mounted circuits

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS416	D4	SOD-323

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Parameter	**Symbol**	**Limits**	**Unit**
Peak reverse voltage	V_{RRM}	85	V
DC Reverse Voltage	V_R	75	V
continuous forward current	I_F	200	mA
repetitive peak forward current	I_{FRM}	500	
non-repetitive peak forward current	I_{FSM} t = 1 μs t = 1 ms t = 1 s	4 1 0.5	A
Power Dissipation	P_D	250	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{STG}	-65 to +125	℃

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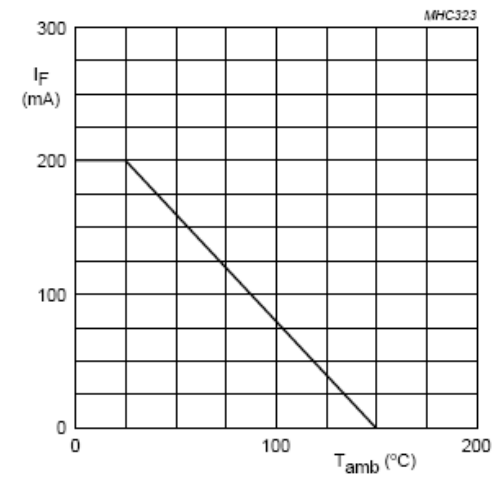
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

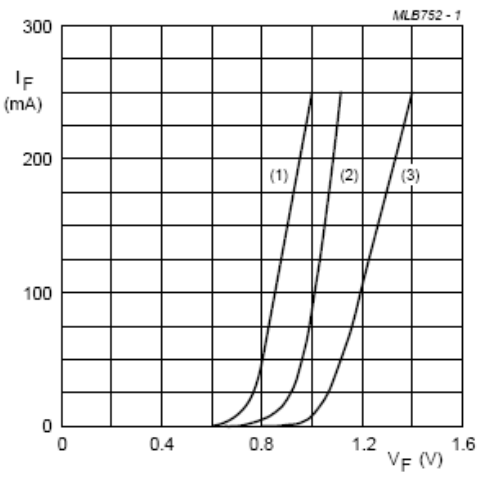
Parameter	Symbol	Min.	TYP.	Max.	Unit	Conditions
Forward voltage	V_F			0.9 1 1.1 1.25	V	I_F=1mA I_F=10mA I_F=50mA I_F=150mA
Reverse current	I_R			50	μA	V_R=75V
Capacitance between terminals	C_d		2		pF	V_R=0V,f=1MHz
reverse recovery time	trr		0.8	3	us	when switched from I_F = 10 mA to I_R = 10 mA; R_L = 100Ω measured at I_R = 1 mA

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified



Device mounted on an FR4 printed-circuit board.

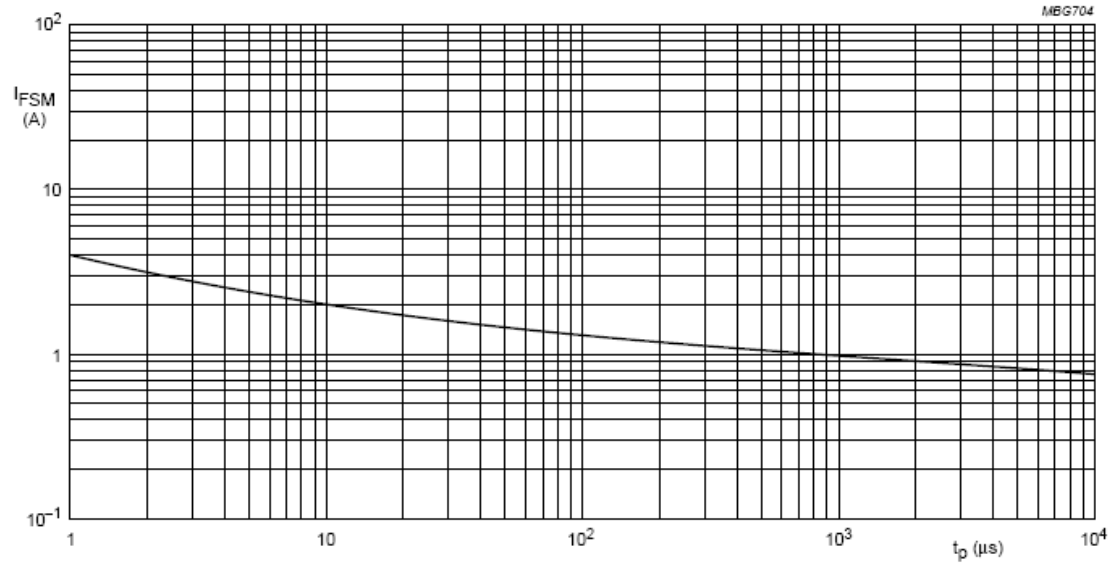
Fig.2 Maximum permissible continuous forward current as a function of ambient temperature.



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

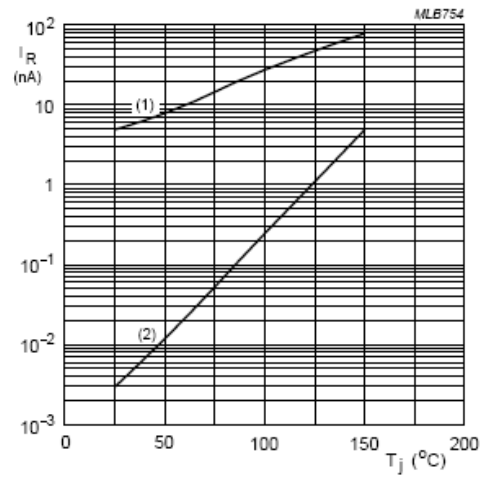
Fig.3 Forward current as a function of forward voltage.

Low-leakage Diode **BAS416**



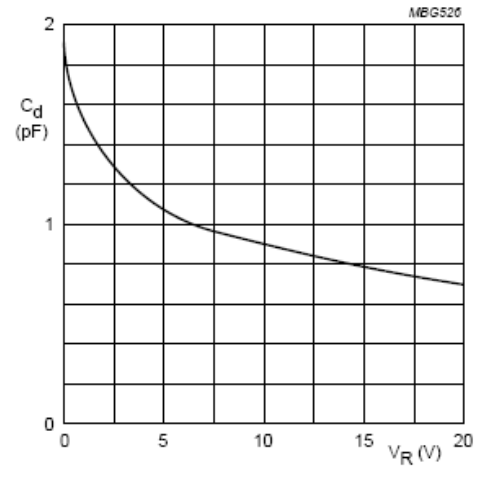
Based on square wave currents.
T_j = 25 °C prior to surge.

Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.



V_R = 75 V.
(1) Maximum values.
(2) Typical values.

Fig.5 Reverse current as a function of junction temperature.



f = 1 MHz; T_j = 25 °C.

Fig.6 Diode capacitance as a function of reverse voltage; typical values.

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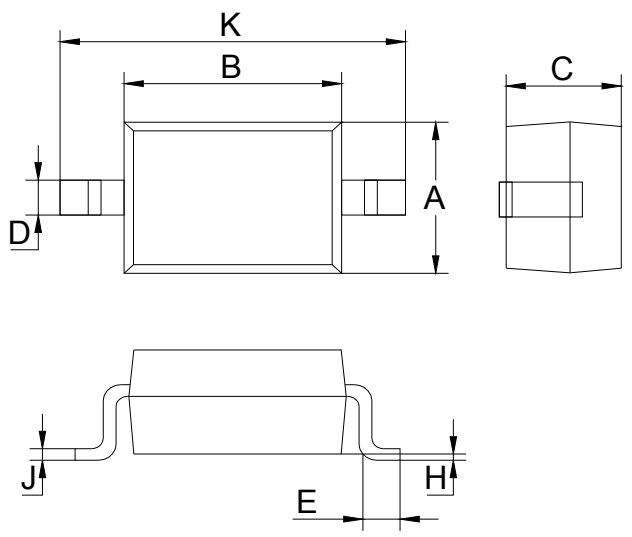
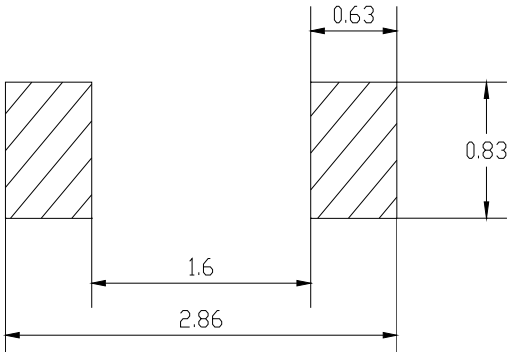
PACKAGE OUTLINE

Plastic surface mounted package SOD-323



SOD-323		
Dim	Min	Max
A	1.275	1.325
B	1.675	1.725
C	0.9 Typical	
D	0.30 Typical	
E	0.27	0.37
H	0.02	0.1
J	0.1 Typical	
K	2.6	2.7
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit ： mm

PACKAGE INFORMATION

Device	Package	Shipping
BAS416	SOD-323	3000/Tape&Reel