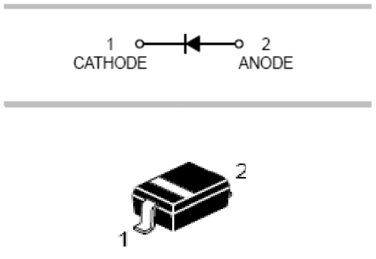
Silicon Epitaxial Planar Diode **BAS316**

FEATURES

- Very small plastic SMD package
- High switching speed:max.4ns
- Continuous reverse voltage:max.100v
- Repetitive peak reverse voltage:max.100v
- Repetitive peak forward current:max.500mA

Lead-free



SOD-323

APPLICATIONS

- Surface mount fast switching diode

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS316	A6	SOD-323

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Characteristic		**Symbol**	**Value**	**Unit**
Repetitive peak reverse voltage		V_{RRM}	100	V
Continuous Reverse Voltage		V_R	100	V
Continuous forward Current		I_F	250	mA
Repetitive peak forward current		I_{FRM}	500	mA
Non-Repetitive peak forward current	t=1μs t=1ms t=1s	I_{FSM}	4 1 0.5	A
Power Dissipation		P_d	400	mW
Junction and Storage Temperature Rage		T_j,T_{STG}	-65 to +150	℃

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Characteristic	**Symbol**	**Min**	**Max**	**Unit**	**Test Condition**
Reverse Breakdown Voltage	$V_{(BR)R}$	100	-	V	I_R=100μA
Forward Voltage	V_F		0.715 0.855 1.0 1.25	V	I_F=1.0mA I_F=10mA I_F=50mA I_F=150mA
Reverse Current	I_R	-	1.0 0.03	μA	V_R=75V V_R=25V
Capacitance between terminals	C_T	-	1.5	pF	V_R=0,f=1.0MHz
Reverse Recovery Time	t_{rr}	-	4.0	ns	I_F=I_R=10mA,R_L=100Ω

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

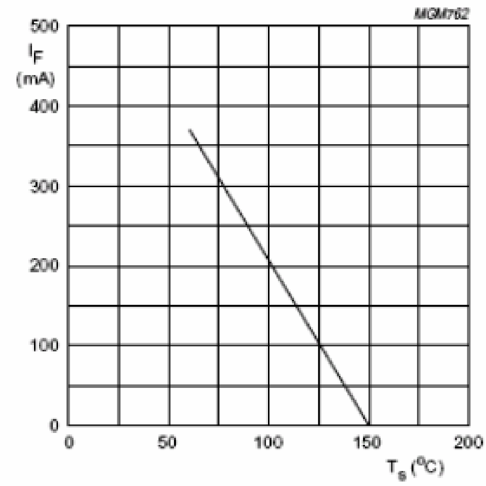
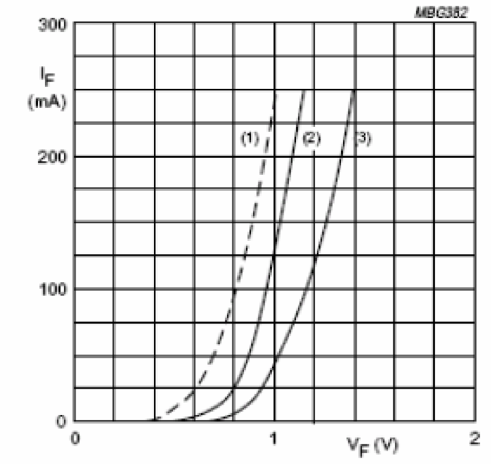
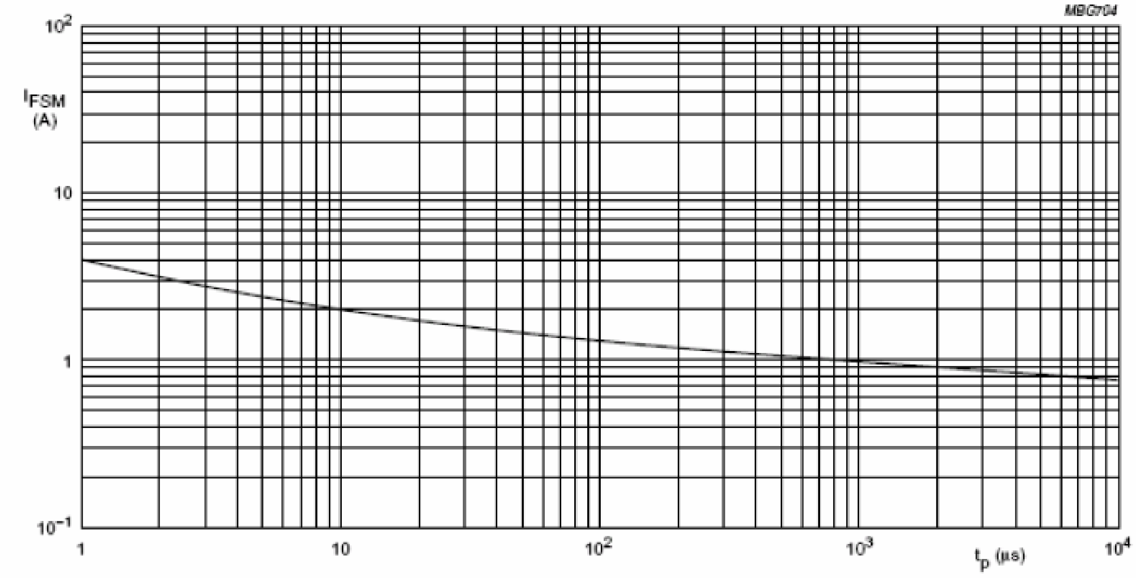


Fig.2 Maximum permissible continuous forward current as a function of soldering point temperature.



(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.



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.

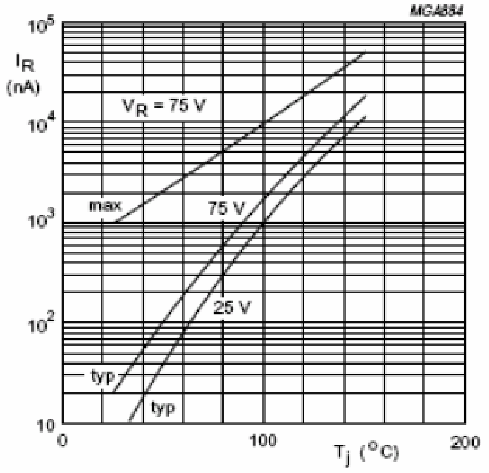
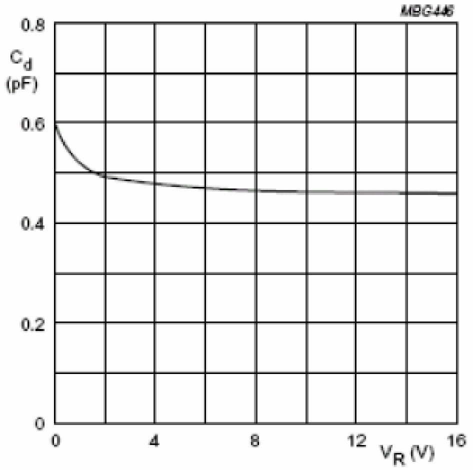


Fig.5 Reverse current as a function of junction temperature.

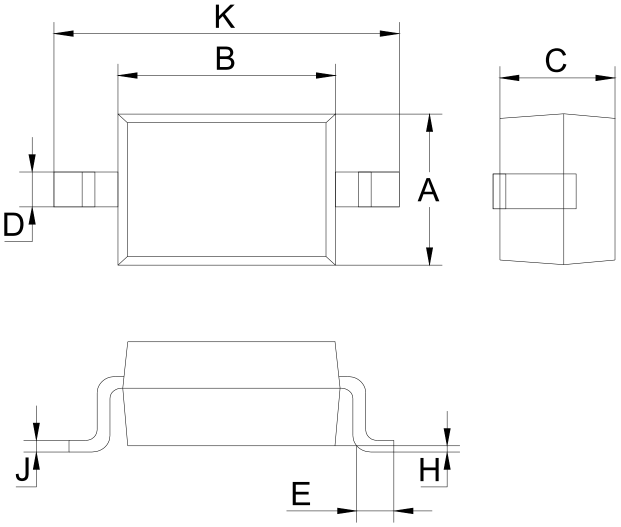


f = 1 MHz; T_j = 25 °C.

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

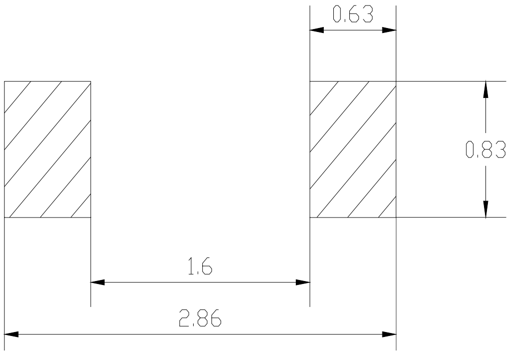
PACKAGE OUTLINE

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
BAS316	SOD-323	3000/Tape&Reel