



BAS316

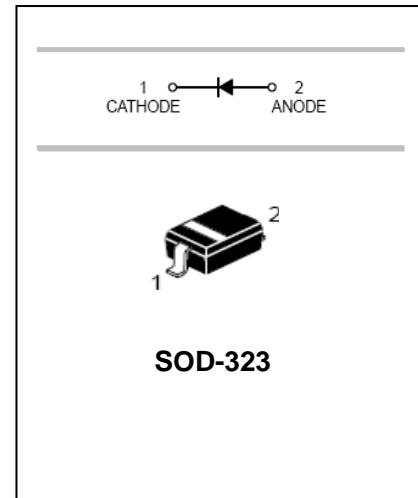
Silicon Epitaxial Planar Diode

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



APPLICATIONS

- Surface mount fast switching diode

ORDERING INFORMATION

Type No.	Marking	Package Code
BAS316	A6	SOD-323

MAXIMUM RATING @ Ta=25°C 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 Range	T _j , T _{STG}	-65 to +150	°C



BAS316

Silicon Epitaxial Planar Diode

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

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

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

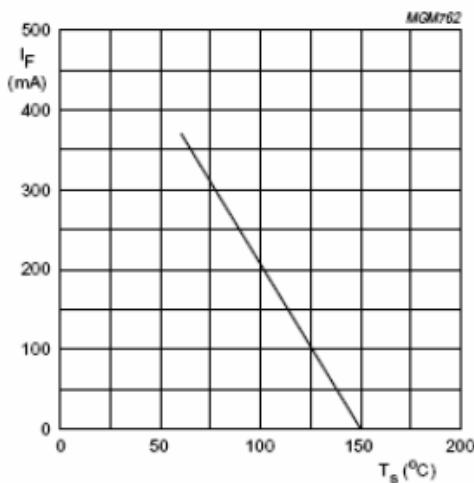
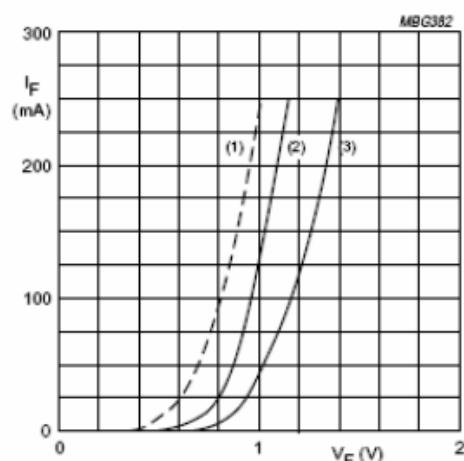


Fig.2 Maximum permissible continuous forward current as a function of soldering point temperature.



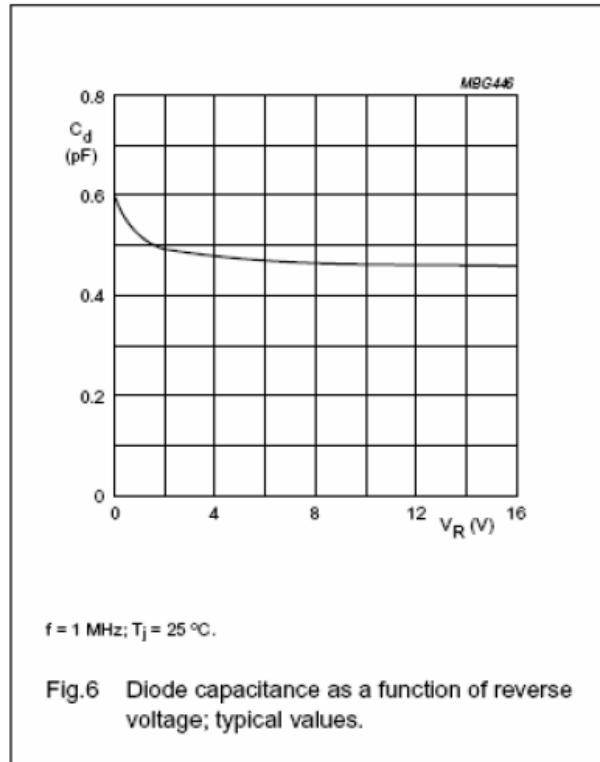
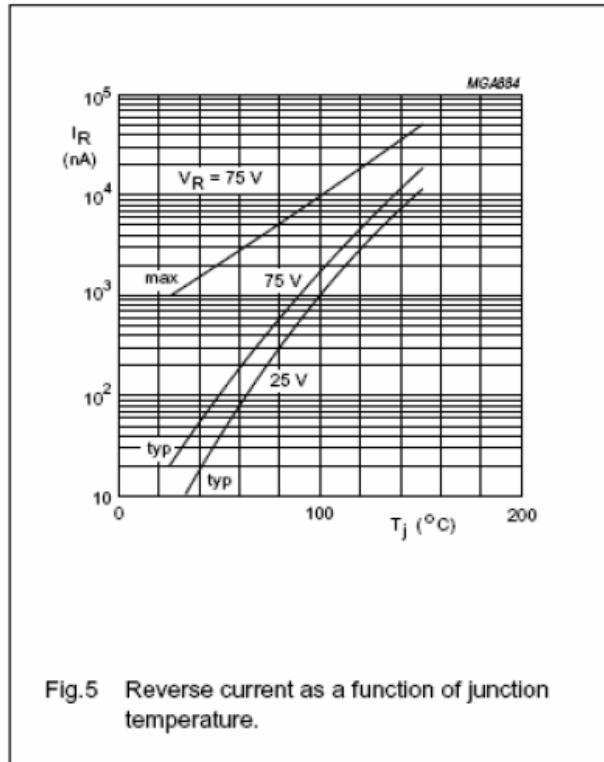
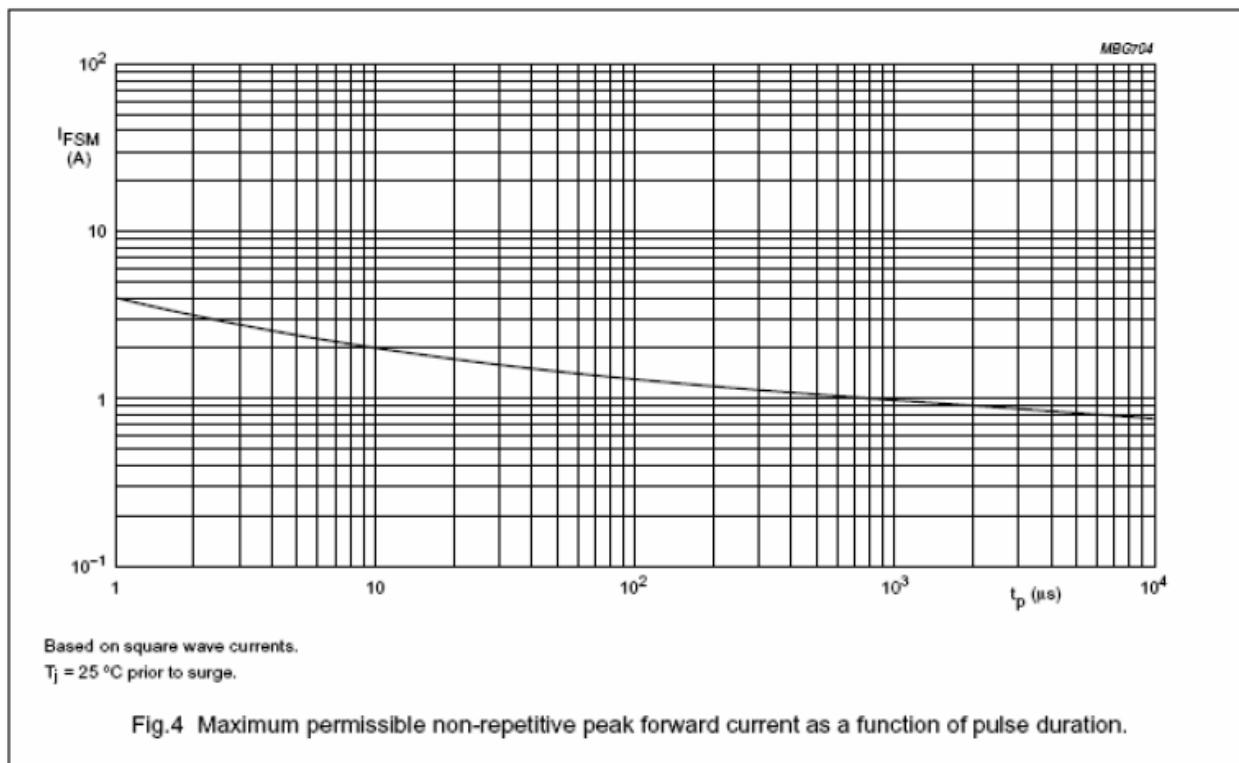
- (1) $T_j = 150\text{ }^\circ\text{C}$; typical values.
- (2) $T_j = 25\text{ }^\circ\text{C}$; typical values.
- (3) $T_j = 25\text{ }^\circ\text{C}$; maximum values.

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



BAS316

Silicon Epitaxial Planar Diode





BAS316

Silicon Epitaxial Planar Diode

PACKAGE OUTLINE

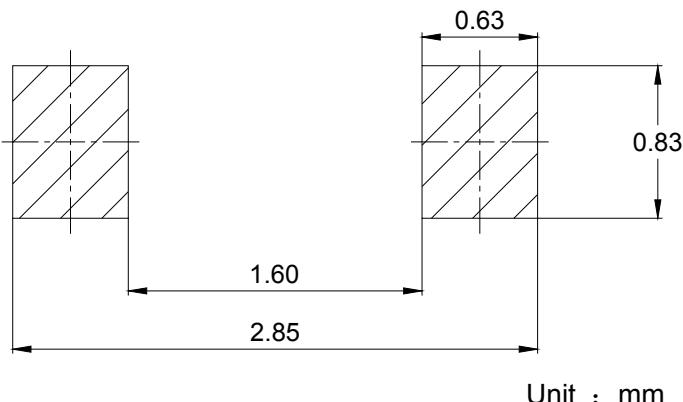
Plastic surface mounted package

SOD-323

SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.9 Max	
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
BAS316	SOD-323	3000/Tape&Reel