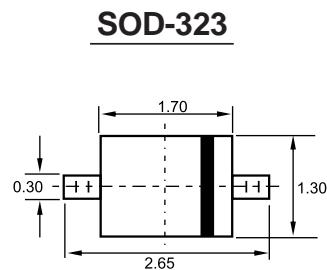
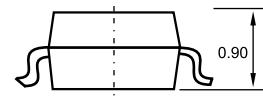


## Features

- ✧ 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



Dimensions in inches and (millimeters)



## Applications

- ✧ Surface mount fast switching diode

## Ordering Information

Type No.	Marking	Package Code
BAS316	A6	SOD-323

**MAXIMUM RATING** @  $T_a=25^\circ\text{C}$  unless otherwise specified

Characteristic	Symbol	Value	Unit
DC Reverse Voltage	$V_R$	100	V
Forward Current	$I_F$	300	mA
Power Dissipation	$P_d$	200	mW
Junction and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150	°C

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	100	-	V	$I_R=100\mu A$
Forward Voltage	$V_F$	0.62	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	$\mu A$	$V_R=75V$ $V_R=25V$
Capacitance between terminals	$C_T$	-	1.5	pF	$V_R=0, f=1.0MHz$
Reverse Recovery Time	$t_{rr}$	-	4.0	ns	$I_F=I_R=10mA, R_L=100\Omega$

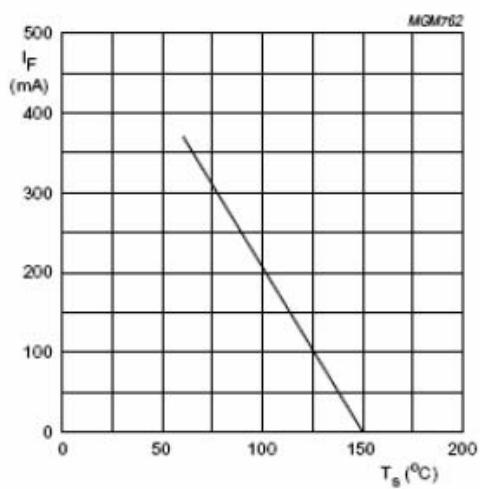
**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**


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

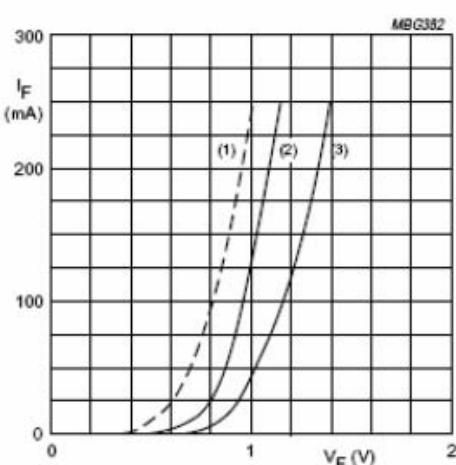


Fig.3 Forward current as a function of forward voltage.

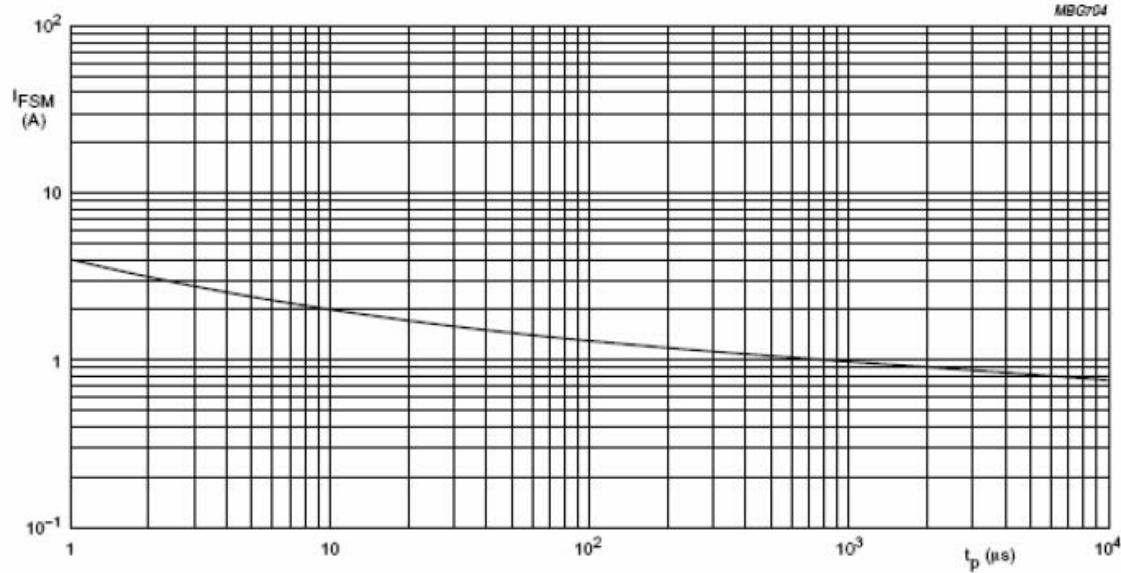


Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

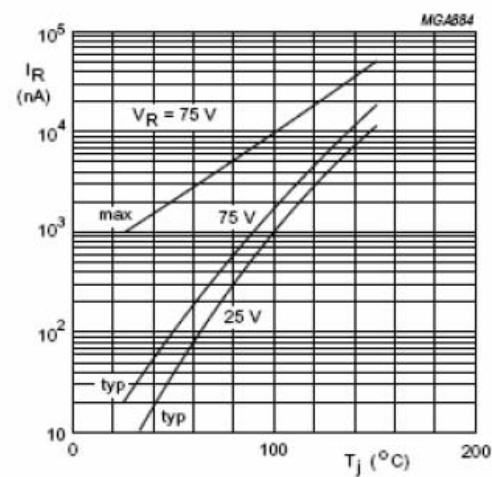
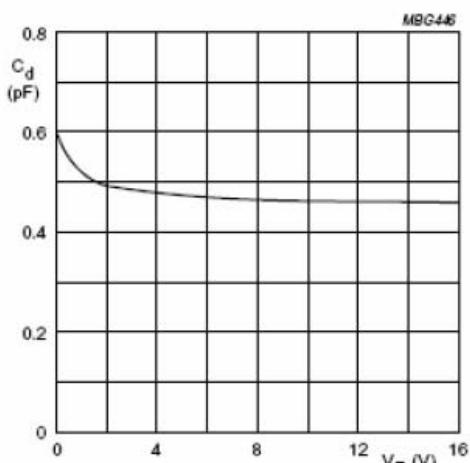


Fig.5 Reverse current as a function of junction temperature.



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

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