



## Schottky Barrier Diode

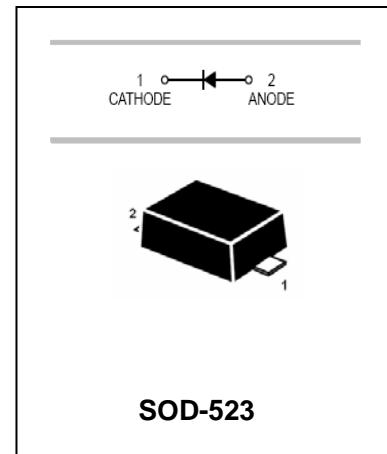
**1PS79SB30**

### FEATURES

- Low forward voltage.
- low reverse current
- Guard ring protected
- Small package.



Lead-free



### APPLICATIONS

- Ultra high-speed switching
- Voltage clamping
- Protection circuits
- Blocking diodes
- Low power consumption applications (e.g. hand-held applications).

### ORDERING INFORMATION

Type No.	Marking	Package Code
1PS79SB30	G1	SOD-523

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

Parameter	Symbol	Limits	Unit
continuous reverse voltage	$V_R$	40	V
Continuous forward current	$I_F$	200	mA
Surge current	$I_{FSM}$	1	A
Total power dissipation	$P_{tot}$	150	mW
Junction temperature	$T_j$	-65 to +150	°C
Storage temperature	$T_{stg}$	150	°C
operating ambient temperature	$T_{amp}$	-65 to +150	°C



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$		0.19	0.22	V	$I_F=0.1\text{mA}$
			0.25	0.29	V	$I_F=1\text{mA}$
			0.32	0.36	V	$I_F=10\text{mA}$
			0.44	0.5	V	$I_F=100\text{mA}$
			0.52	0.6	V	$I_F=200\text{mA}$
Reverse current	$I_R$			0.5	$\mu\text{A}$	$V_R=25\text{V}$
Diode capacitance	$C_d$			20	pF	$V_R=1\text{V}, f=1\text{MHz}$



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

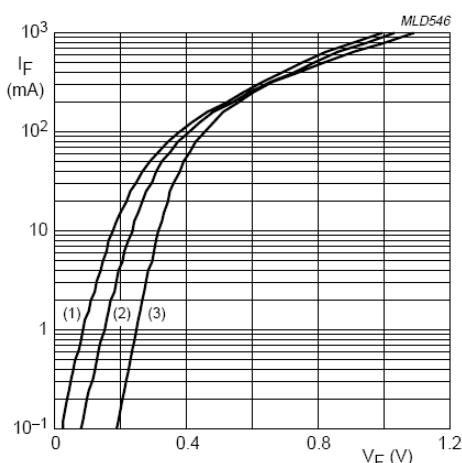


Fig.2 Forward current as a function of forward voltage; typical values.

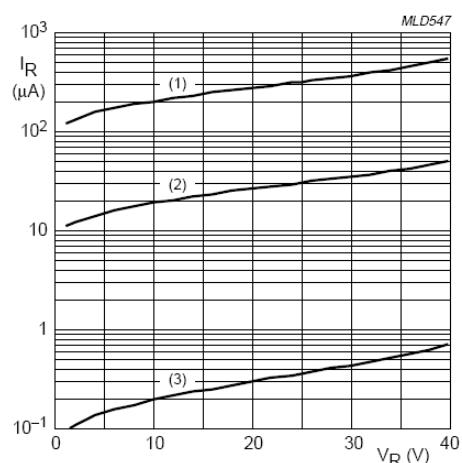
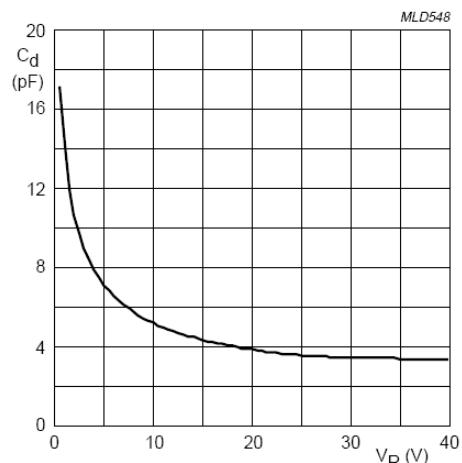


Fig.3 Reverse current as a function of reverse voltage; typical values.



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

Fig.4 Diode capacitance as a function of reverse voltage; typical values.



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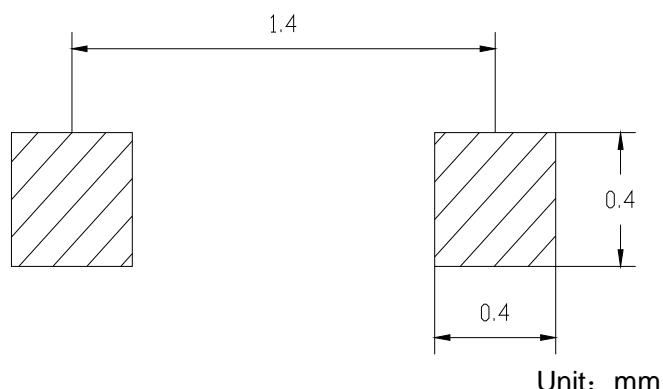
### PACKAGE OUTLINE

Plastic surface mounted package

SOD-523

SOD-523		
Dim	Min	Max
A	1.1	1..3
B	0.7	0.9
C	0.5	0.7
D	0.3 Typical	
E	0.15	0.25
J	0.1 Typical	
K	1.5	1.7
All Dimensions in mm		

### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

Device	Package	Shipping
1PS79SB30	SOD-523	3000/Tape&Reel