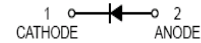




### FEATURES

- Small package.
- High speed switching.



### APPLICATIONS

- High speed switching application.

**SOD-523**

### ORDERING INFORMATION

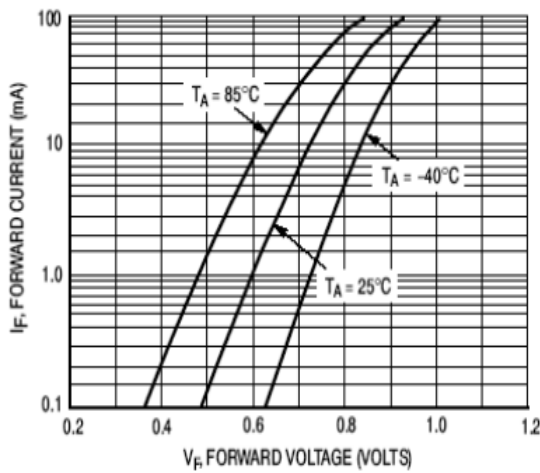
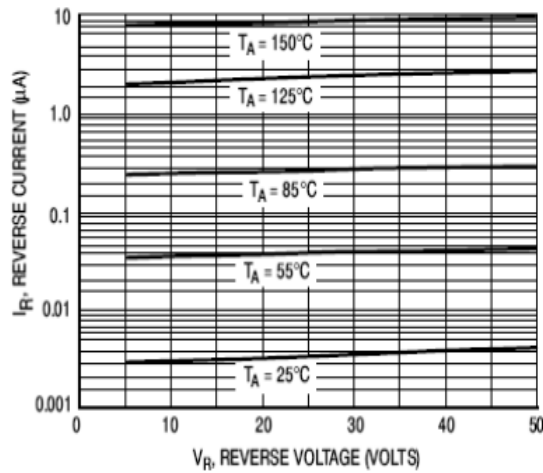
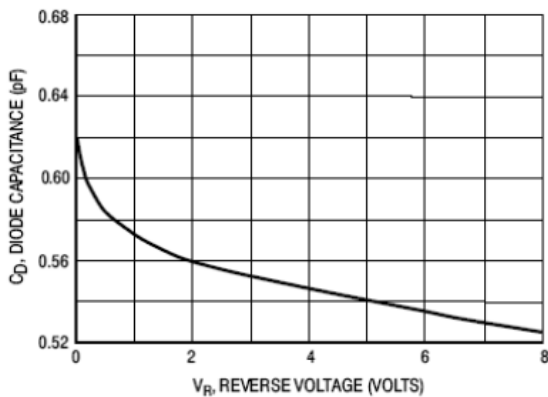
Type No.	Marking	Package Code
BAS16X	A6	SOD-523

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Peak repetitive reverse voltage	$V_{RRM}$	85	V
Working peak reverse voltage	$V_{RWM}$		
DC Reverse voltage	$V_R$		
RMS Reverse voltage	$V_{R(RMS)}$	60	V
Continuous forward current	$I_F$	155	mA
Repetitive peak forward current	$I_{FRM}$	500	mA
Non-Repetitive peak forward surge current	$I_{FSM}$	4.0	A
@t=1.0μs		1.0	
@t=1.0ms		0.5	
@t=1.0s			
Total power dissipation	$P_D$	150	mW
Total resistance junction to ambient	$R_{\theta JA}$	833	°C/W
Total resistance junction to case	$R_{\theta JC}$	280	°C/W
Junction temperature	$T_J$	150	°C
Storage temperature	$T_{STG}$	-65 to +150	°C

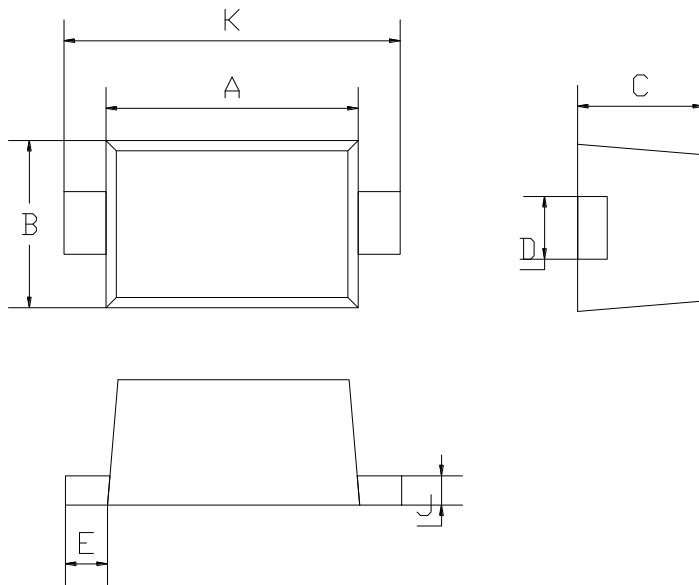
**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)R}$	85			V	$I_R=100\mu A$
Forward voltage	$V_F$			0.715 0.815 1 1.25	V	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$
Reverse current	$I_R$			2.0 30	$\mu A$ nA	$V_R=75V$ $V_R=25V$
Diode capacitance	$C_d$			1.5	pF	$V_R=0V, f=1MHz$
Reverse recovery time	$t_{rr}$			4	ns	$I_F=I_R=10mA, R_L=100\Omega$

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

**Figure 2. Forward Voltage**

**Figure 3. Leakage Current**

**Figure 4. Capacitance**

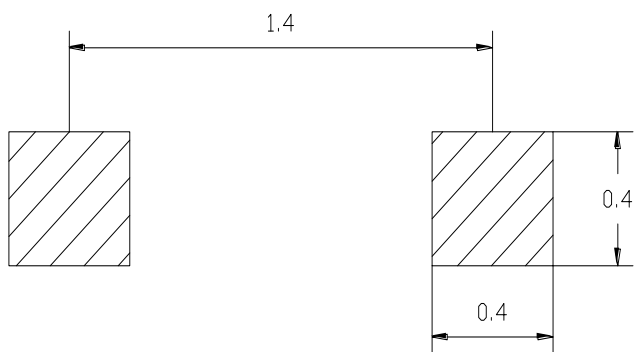
## PACKAGE OUTLINE

Plastic surface mounted package



SOD-523		
Dim	Min	Max
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70
All Dimensions in mm		

## SOLDERING FOOTPRINT



Unit: mm

## PACKAGE INFORMATION

Device	Package	Shipping
BAS16X	SOD-523	3000 pcs / Tape & Reel