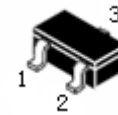




### FEATURES

- Fast switching speed
- High conductance
- For general purpose switching applications
- Surface mount package ideally suited for automatic insertion



### APPLICATIONS

- For general purpose switching applications

**SOT-323**

### ORDERING INFORMATION

Type No.	Marking	Package Code
BAS16W	A2	SOT-323

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

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	75	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	$I_O$	150	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	2.0	A
@t=1μS		1.0	
@t=1S			
Power Dissipation	$P_d$	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Operating and Storage temperature range	$T_j T_{stg}$	-65 to +150	°C

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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	$I_R = 1\mu A$	75		V
Reverse voltage leakage current	$I_R$	$V_R = 20V$ $V_R = 75V$		25 1	nA $\mu A$
Forward voltage	$V_F$	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$		715 855 1000 1250	mV
Diode capacitance	$C_D$	$V_R = 0V$ $f = 1MHz$		2	pF
Reverse recovery time	$t_{rr}$	$I_F = I_R = 10mA$ $R_L = 100\Omega$		4	nS

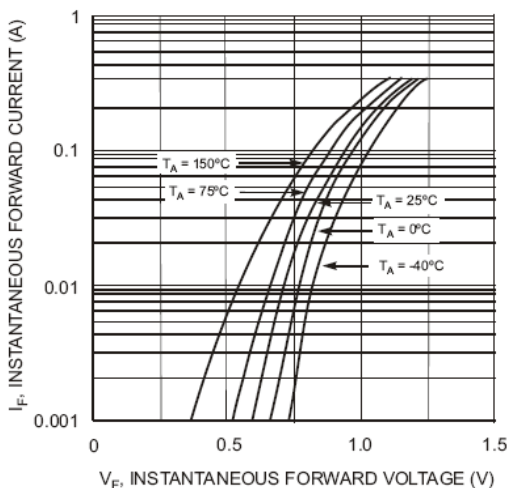
**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**


Fig. 1 Forward Characteristics

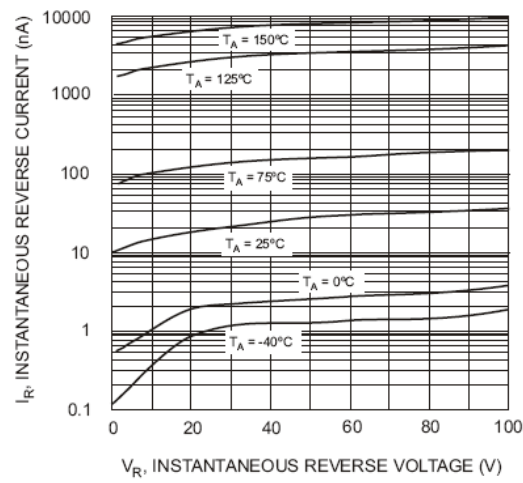


Fig. 2 Typical Reverse Characteristics

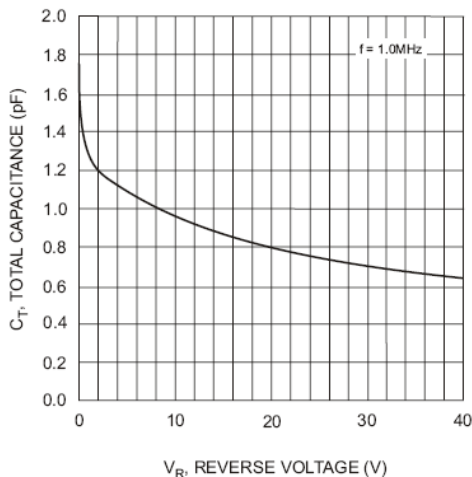


Fig. 3 Typical Capacitance vs. Reverse Voltage

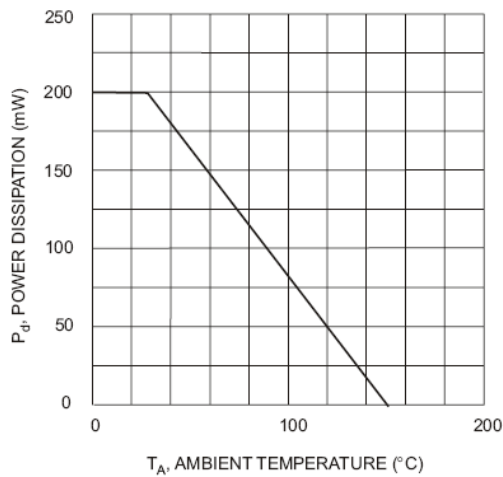
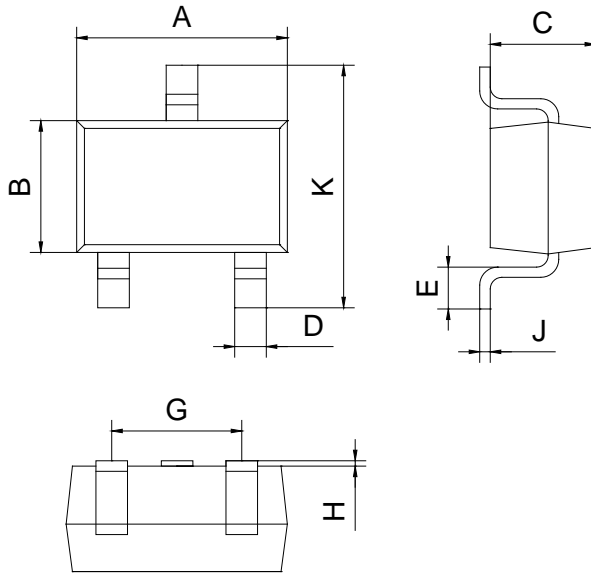


Fig. 4 Power Derating Curve, Total Package

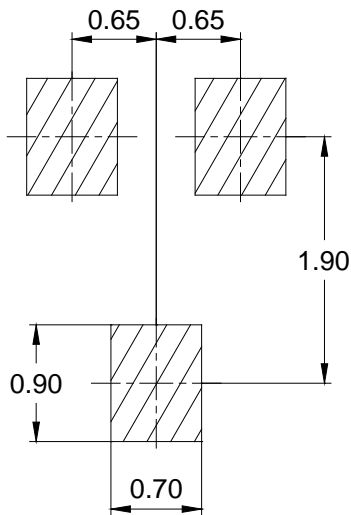
## PACKAGE OUTLINE

Plastic surface mounted package



SOT-323		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	0.25	0.40
G	1.20	1.40
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40
All Dimensions in mm		

## SOLDERING FOOTPRINT



Unit: mm

## PACKAGE INFORMATION

Device	Package	Shipping
BAS16W	SOT-323	3000pcs / Tape & Reel