

# SOT23 PNP SILICON HIGH SPEED SWITCHING DIODE

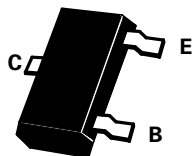
ISSUE 3 – FEBRUARY 1996

## BAS16

### PIN CONFIGURATION



PARTMARKING DETAILS  
BAS16 – A6



SOT23

### ABSOLUTE MAXIMUM RATINGS.

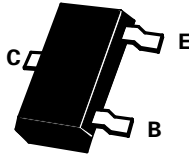
PARAMETER	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	$V_R$	75	V
Repetative Reverse Voltage	$V_{RRM}$	85	V
Repetative Peak Forward Current	$I_{FRM}$	250	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	330	mW
Operating and Storage Temperature Range	$T_j:T_{stg}$	-55 to +150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

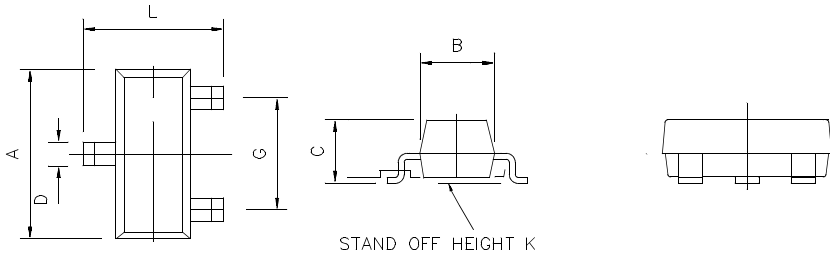
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Forward Voltage	$V_F$			715 855 1000 1250		$I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$
Reverse Current	$I_R$			30 1 50	nA mA	$V_R=25\text{V}$ , $T_j=150^\circ\text{C}$ $V_R=75\text{V}$ $V_R=75\text{V}$ , $T_j=150^\circ\text{C}$
Forward Recovery Voltage	$V_{FR}$			1.75		Switched to $I_F=10\text{mA}$ , $t_r=20\text{ns}$
Diode Capacitance	$C_d$			2	pF	$f=1\text{MHz}$ , $V_R=0$
Reverse Recovery Time	$t_{rr}$			6	ns	$I_F=10\text{mA}$ , $I_{RM}=10\text{mA}$ $R_L=100\Omega$ , $I_{rr}=1\text{mA}$

- (1) Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$
- (2) At zero life time, measured under pulse conditions to avoid excessive dissipation and voltage limited to 275V

# BAS16



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	2.67	3.05	0.105	0.120
B	1.20	1.40	0.047	0.055
C	-	1.10	-	0.043
D	0.37	0.53	0.0145	0.021
F	0.085	0.15	0.0033	0.0059
G	NOM 1.9		NOM 0.075	
K	0.01	0.10	0.0004	0.004
L	2.10	2.50	0.0825	0.0985
N	NOM 0.95		NOM 0.37	



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