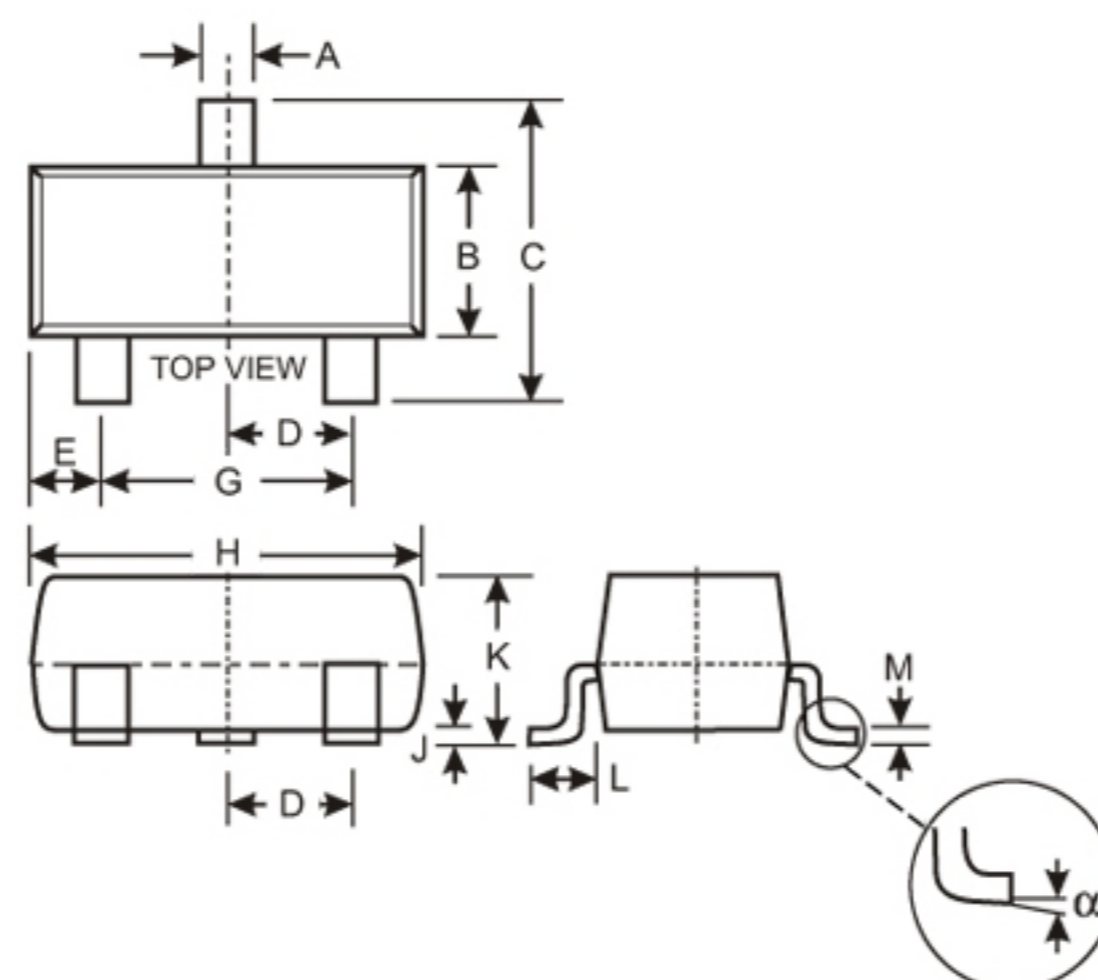


## ● Features

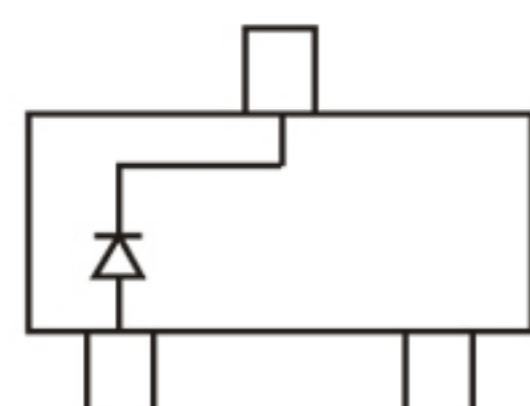
Low Forward Voltage Drop  
 Fast Switching  
 PN Junction Guard Ring for Transient and ESD Protection

## ● Mechanical Data

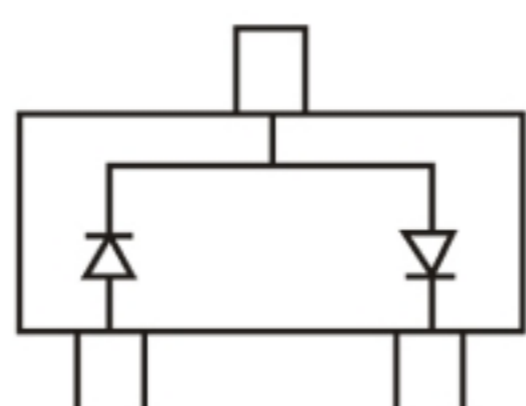
Case: SOT-23, Molded Plastic  
 Case material - UL Flammability Rating Classification 94V-0  
 Moisture sensitivity: Level 1 per J-STD-020A  
 Terminals: Solderable per MIL-STD-202, Method 208  
 Polarity: See Diagram Below  
 Weight: 0.008 grams (approx.)  
 Marking Code: See Diagrams Below & Page 2  
 Ordering Information: See Page 2



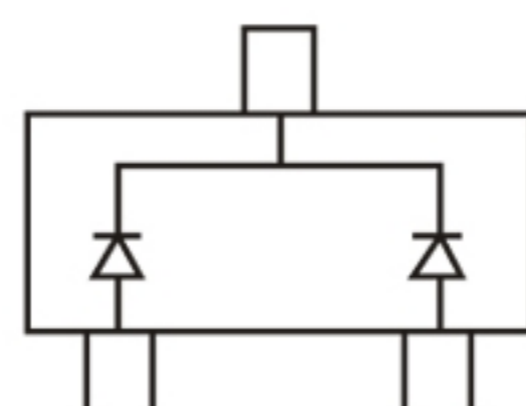
SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.85	0.80
$\alpha$	0°	8°
All Dimensions in mm		



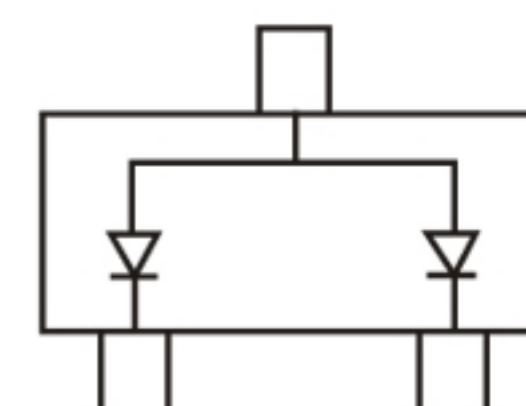
BAS40 Marking: K43



BAS40-04 Marking: K44



BAS40-05 Marking: K45



BAS40-06 Marking: K46

## ● Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	40	V
Forward Continuous Current (Note 1)	I <sub>FM</sub>	200	mA
Power Dissipation (Note 1)	P <sub>d</sub>	350	mW
Forward Surge Current (Note 1) @ t < 1.0s	I <sub>FSM</sub>	600	mA
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	357	°C/W
Operating Temperature Range	T <sub>j</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150	°C

## ● Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V <sub>(BR)R</sub>	40	—	—	V	I <sub>R</sub> = 10μA
Forward Voltage (Note 2)	V <sub>F</sub>	—	—	380 1000	mV	t <sub>p</sub> < 300μs, I <sub>F</sub> = 1.0mA t <sub>p</sub> < 300μs, I <sub>F</sub> = 40mA
Reverse Leakage Current (Note 2)	I <sub>R</sub>	—	20	200	nA	t <sub>p</sub> < 300μs, V <sub>R</sub> = 30V
Total Capacitance	C <sub>T</sub>	—	4.0	5.0	pF	V <sub>R</sub> = 0V, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	—	—	5.0	ns	I <sub>F</sub> = I <sub>R</sub> = 10mA to I <sub>R</sub> = 1.0mA, R <sub>L</sub> = 100Ω



## Ordering Information (Note 3)

Device	Packaging	Shipping
BAS40 BAS40-04 BAS40-05 BAS40-06	SOT-23	3000/Tape & Reel