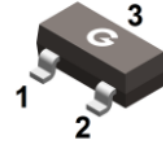
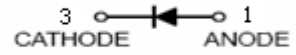


## Features

- Fast switching speed
- High conductance
- RoHS compliant with Halogen-free

HF



SOT-23

## Mechanical Data

- Case: SOT-23
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

## Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAS16	SOT-23	3000 pcs / Tape & Reel	A6

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V <sub>RM</sub>	85	V
DC Blocking Voltage	V <sub>R</sub>	75	V
Forward Continuous Current	I <sub>F</sub>	250	mA
Non-Repetitive Peak Forward Surge Current, t = 1μs	I <sub>FSM</sub>	4.5	A

## Thermal Characteristics

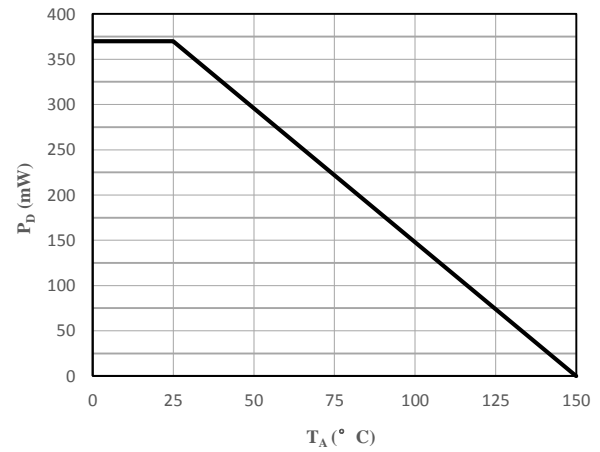
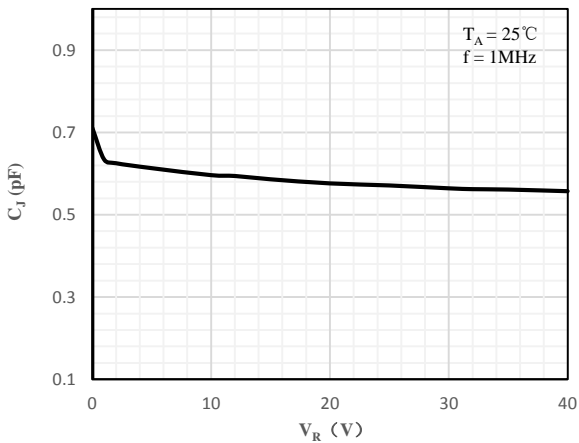
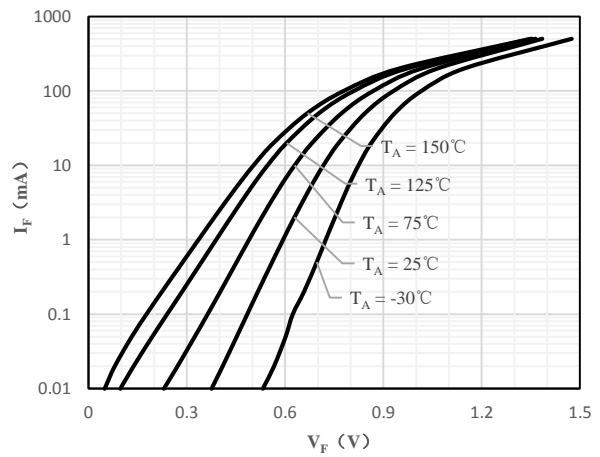
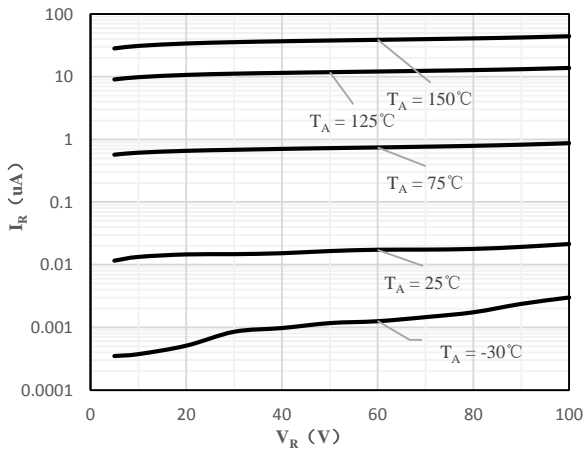
Parameter	Symbol	Value	Unit
Power Dissipation	P <sub>D</sub>	370	mW
Thermal Resistance Junction-to-Air *1	R <sub>θJA</sub>	150	°C/W
Thermal Resistance Junction-to-Case *1	R <sub>θJC</sub>	100	°C/W
Thermal Resistance Junction-to-Lead *1	R <sub>θJL</sub>	80	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-65 ~ +150	°C
Storage Temperature Range	T <sub>STG</sub>	-65 ~ +150	°C

Note 1: The data tested by surface mounted on a 1 inch<sup>2</sup> FR-4 board with 2OZ copper

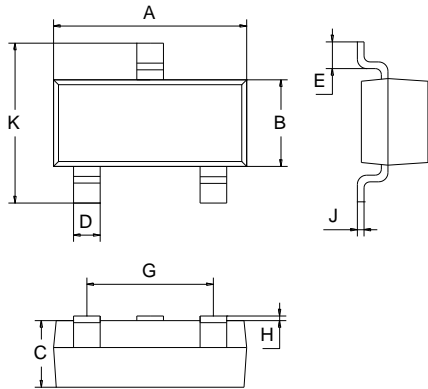
### Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	75	-	-	V
Forward Voltage	$V_F$	$I_F = 1\text{mA}$	-	-	0.715	V
		$I_F = 10\text{mA}$	-	-	0.855	V
		$I_F = 50\text{mA}$	-	-	1.000	V
		$I_F = 150\text{mA}$	-	-	1.250	V
Maximum Peak Reverse Current	$I_R$	$V_R = 70\text{V}$	-	-	1	$\mu\text{A}$
Total Capacitance	$C_J$	$V_R = 0\text{V}, f = 1.0\text{MHz}$	-	-	2	pF
Reverse Recovery Time	$t_{rr}$	$I_F = I_R = 10\text{mA}$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	-	4	ns

Ratings and Characteristics Curves (@  $T_A = 25^\circ\text{C}$  unless otherwise specified)



**Package Outline Dimensions** (Unit: mm)



SOT-23		
Dimension	Min.	Max.
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

**Package Outline Dimensions** (Unit: mm)

**SOT-23**

