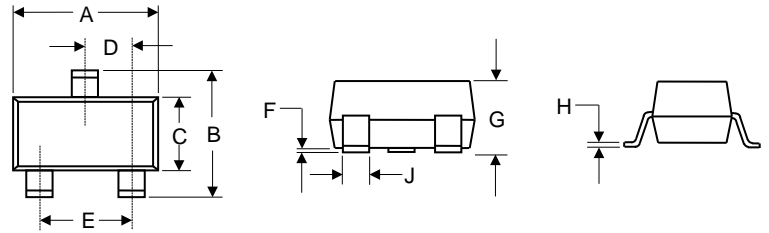


Features

- * Small package
- * Low forward voltage
- * Fast reverse recovery time
- * Small total capacitance
- * Ultra high speed switching application
- * Marking Code: 5D



RoHS
COMPLIANT



SOT-23				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.110	0.120	2.80	3.04
B	0.087	0.102	2.20	2.60
C	0.047	0.055	1.20	1.40
D	0.035	0.04	0.89	1.02
E	0.070	0.080	1.78	2.04
F	---	0.004	---	0.10
G	0.035	0.047	0.89	1.20
H	0.003	0.008	0.08	0.19
J	0.015	0.02	0.37	0.51

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	85	V
Continuous Reverse Voltage	V _R	75	V
Continuous Forward Current	I _F	215	mA
Repetitive Peak Forward Current	I _{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current t = 1 μs t = 1 ms t = 1 s	I _{FSM}	4 1 0.5	A
Power Dissipation	P _{tot}	350	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	- 65 to + 150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I _F = 1 mA at I _F = 10 mA at I _F = 50 mA at I _F = 150 mA	V _F	-	715	mV
		-	855	mV
		-	1	V
		-	1.25	V
Reverse Current at V _R = 25 V at V _R = 75 V at V _R = 25 V, T _J = 150 °C at V _R = 75 V, T _J = 150 °C	I _R	-	30	nA
		-	1	μA
		-	30	μA
		-	50	μA
Reverse Breakdown Voltage at I _R = 100 μA	V _{(BR)R}	75	-	V
Diode Capacitance at V _R = 0, f = 1 MHz	C _d	-	2	pF
Reverse Recovery Time at I _F = I _R = 10 mA, R _L = 50 Ω	t _{rr}	-	4	ns

Ratings and Characteristic Curves

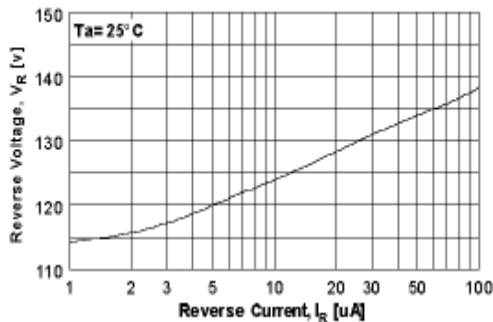


Figure 1. Reverse Voltage vs Reverse Current
BV - 1.0 to 100 uA

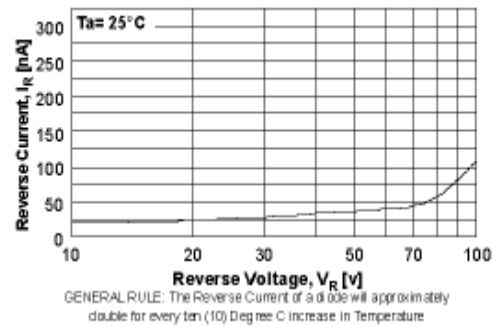


Figure 2. Reverse Current vs Reverse Voltage
IR - 10 to 100 V

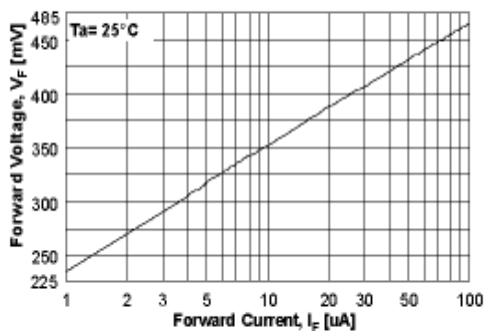


Figure 3. Forward Voltage vs Forward Current
VF - 1.0 to 100 uA

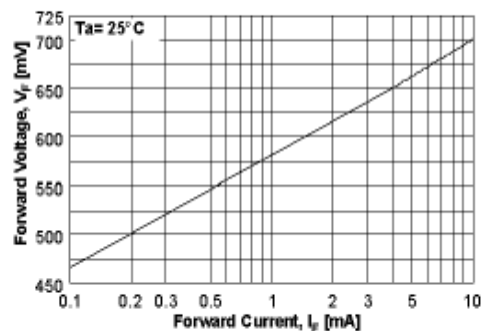


Figure 4. Forward Voltage vs Forward Current
VF - 0.1 to 10 mA

Ratings and Characteristic Curves

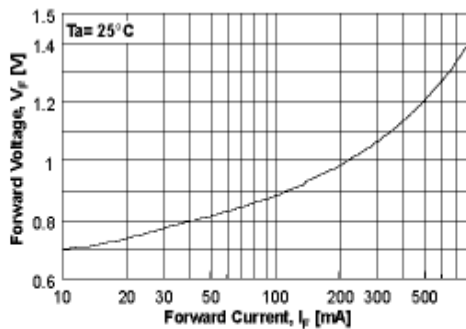


Figure 5. Forward Voltage vs Forward Current
VF - 10 - 800 mA

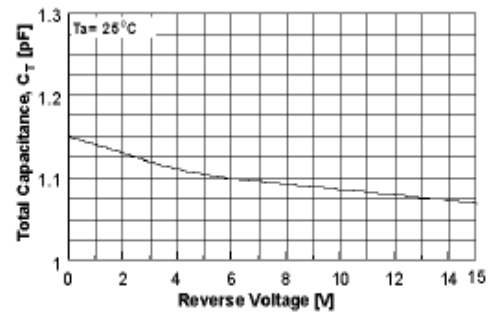


Figure 6. Total Capacitance

Ordering Information

Part No.	Package	Packing Code	Packing
BAS16	SOT-23	R30	3000pcs/Reel

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