

Features

- Fast Switching Device (TRR <50nS)
- Power Dissipation of 225mW
- High Stability and High Reliability
- Low reverse leakage
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 C

Reverse Voltage

250 V

Forward Current

0.2 Ampere

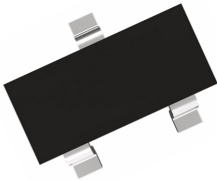
Applications

For General Purpose Switching Applications

SOT-23

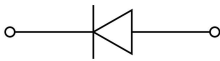
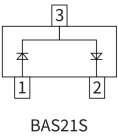
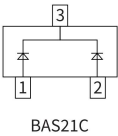
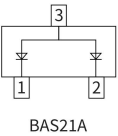
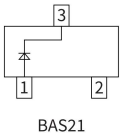
Mechanical Data

- Case: SOT-23
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end



Function Diagram

Marking:
BAS21:JS
BAS21A:JS2
BAS21C:JS3
BAS21S:JS4



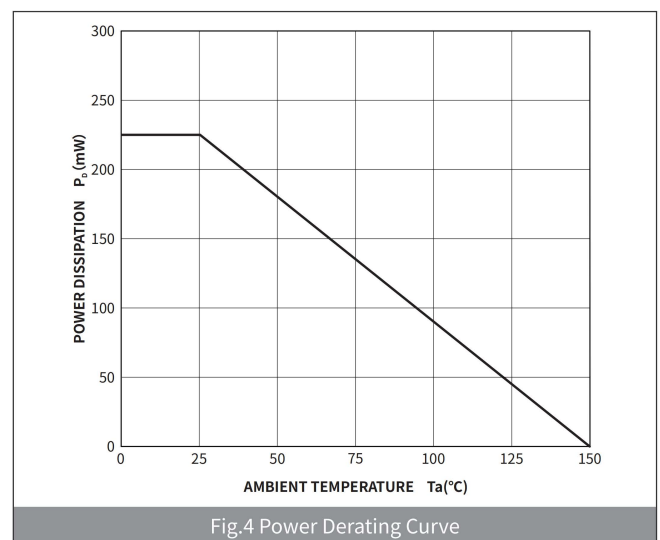
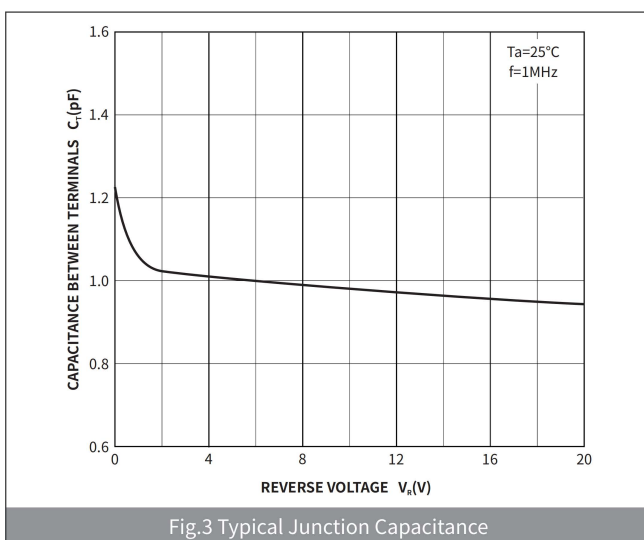
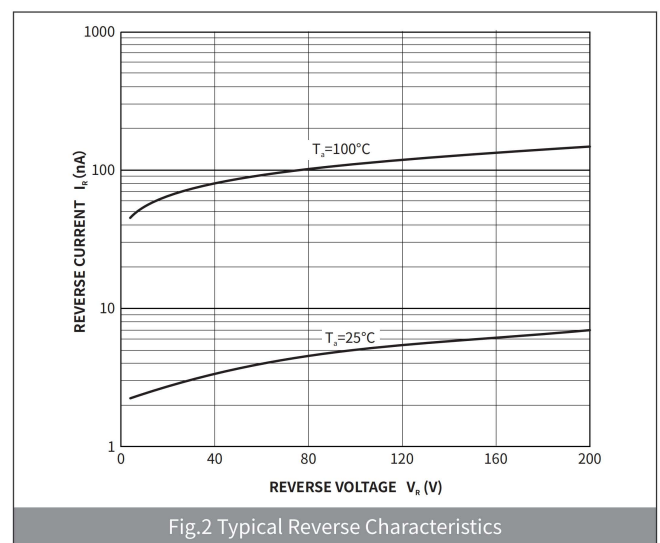
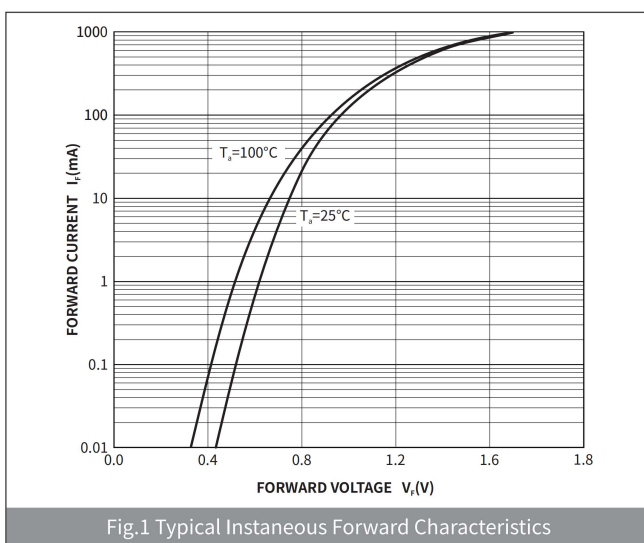
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Maximum repetitive peak reverse voltage	V_{RRM}	V	250
Maximum RMS Voltage	V_{RMS}	V	200
Reverse Breakdown voltage @ $I_R=100\mu A$	$V_{(BR)R}$	V	250
Maximum Average Forward Rectified Current	$I_{F(AV)}$	mA	200
Forward continuous current	I_{FM}	mA	400
Repetitive peak forward current	I_{FRM}	mA	625
Non-Repetitive Peak forward surge current @ $t_p=1.0ms$	I_{FSM}	A	2.5
Power Dissipation	P_d	mW	225
Storage temperature	T_{stg}	°C	-55 ~+150
Junction temperature	T_j	°C	-55 ~+150
Typical thermal resistance	$R_{\theta JA}$	°C /W	555

Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Type	Max
Maximum instantaneous forward voltage	I _F =100mA	V _{F1}	V	—	—	1.0
	I _F =200mA	V _{F2}		—	—	1.25
Reverse Leakage Current	V _R =200V	I _R	μA	—	—	0.1
Total capacitance	V _R =0V, f=1MHz	C _T	pF	—	—	5.0
Maximum reverse recovery time	I _F =I _R =30mA, I _{rr} =0.1×I _R , R _L =100Ω	T _{rr}	ns	—	—	5.0

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOT-23	R1	0.008	3000	45000	180000	7"

Package Outline Dimensions (SOT-23)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.15	0.035	0.045
A1	-	0.10	-	0.004
A2	0.90	1.05	0.035	0.041
b	0.30	0.50	0.012	0.020
c	0.10	0.20	0.004	0.008
D	2.80	3.00	0.110	0.118
E	1.20	1.40	0.047	0.055
E1	2.25	2.55	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.80	2.00	0.071	0.079
L	0.550REF		0.022REF	
L1	0.30	0.50	0.012	0.020
θ	-	8°	-	8°

Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.75	0.85	0.030	0.033
K	0.85	0.95	0.033	0.037
M	1.95	2.05	0.077	0.081
N	1.85	1.95	0.073	0.077