LITE-ON SEMICONDUCTORS

BAS21, BAS21C/S

SURFACE MOUNT
FAST SWITCHING DIODE

REVERSE VOLTAGE – 250 Volts
FORWARD CURRENT – 0.2 Ampere

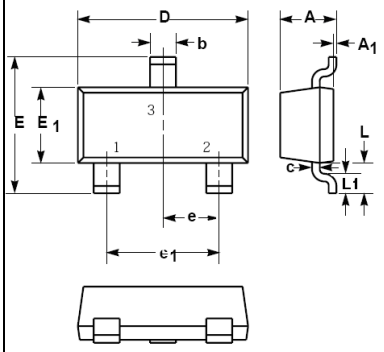
FEATURES

- Fast Switching Speed
- Ideally suited for automatic insertion
- For general purpose switching applications

MECHANICAL DATA

- Case: SOT-23 Plastic
- Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture Sensitivity: Level 1 per J-STD-020D
- Lead Free in RoHS 2002/95/EC Compliant

SOT-23



SOT-23		
Dim.	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	2.25	2.55
E1	1.20	1.40
e	0.95 Typ.	
e1	1.80	2.00
L	0.55 Ref.	
L1	0.30	0.50
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25℃ unless otherwise specified

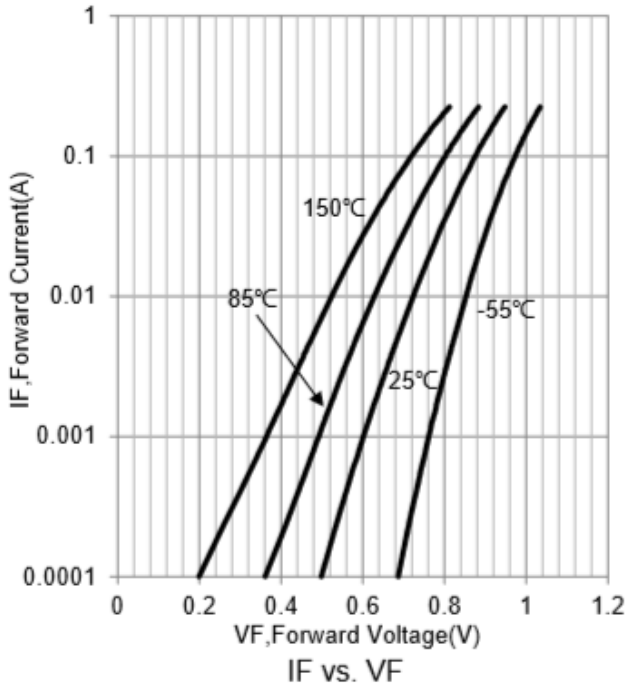
Characteristic	Symbol	BAS21	BAS21C	BAS21S	Units
Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	250			V
Peak Forward Current	I_F	225			mA
Average Rectified Output Current	I_O	200			mA
Peak Forward Surge Current	I_{FM}	625			mA
Power Dissipation	P_D	225			mW
Thermal Resistance Junction to Ambient	$R_{\Theta JA}$	417			℃/W
Operating Temperature Range	T_J	150			℃
Storage Temperature Range	T_{STG}	-55~+150			℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	BAS21	BAS21C	BAS21S	Unit
Reverse Breakdown Voltage	I_R = 100uA	V_{BR}	250			V
Maximum Forward Voltage	I_F = 100mA I_F = 200mA	V_F	1 1.25			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 200V V_R = 200V,TJ=150℃	I_R	0.1 100			uA
Typical Diode Capacitance	V_R =0V,f=1MHz	C_D	5			pF
Reverse Recovery time	Irr=3mA, I_F=I_R=30mA, R_L=100Ω	trr	50			nS

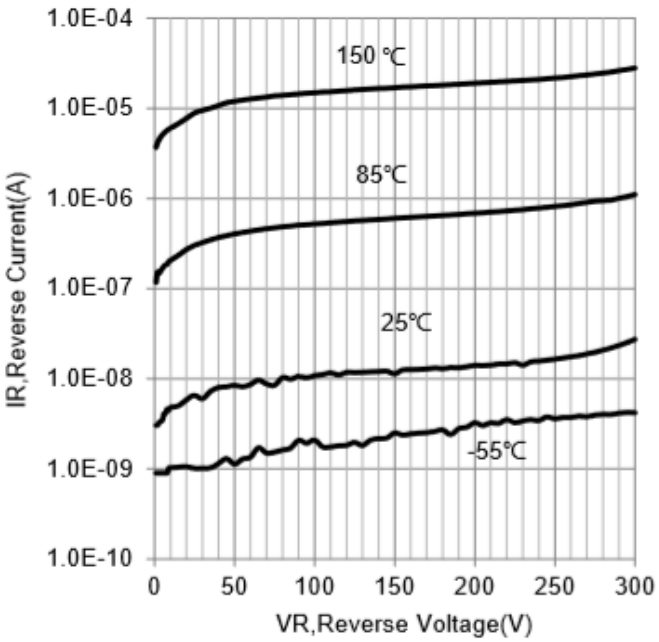
RATING AND CHARACTERISTIC CURVES
BAS21, BAS21C/S

Fig.1 Typical Forward Characteristics



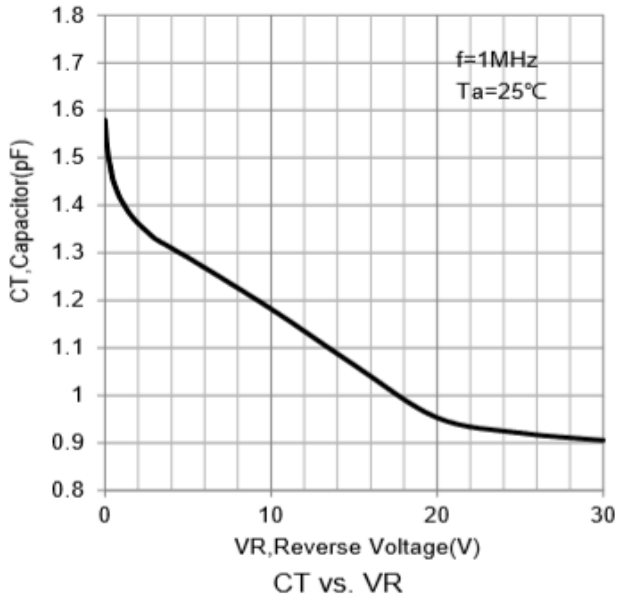
IF vs. VF

Fig.2 Typical Reverse Characteristics



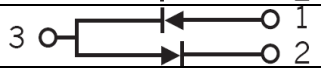
IR vs. VR

Fig.3 Typical Junction Characteristics



CT vs. VR

Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
BAS21	JS	
BAS21C	JU	
BAS21S	JT	

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