HAICHUANG SEMI

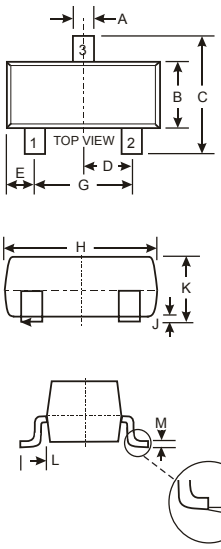
BAS21/A/C/S

SURFACE MOUNT FAST SWITCHING DIODES

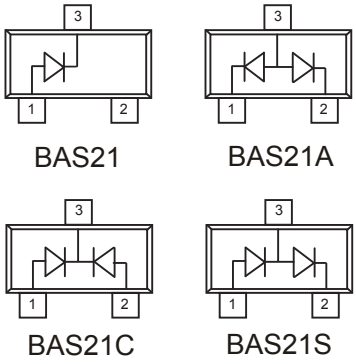
Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

DEVICE	MARKING	TYPE
BAS21	JS	Single
BAS21A	JS2	Dual
BAS21C	JS3	Dual
BAS21S	JS4	Dual



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	0.085	0.180
α	0°	8°
All Dimensions in mm		



Maximum Ratings @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Repetitive Peak reverse voltage Working Peak reverse voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	250	V
Forward Continuous Current	I_{FM}	400	mA
Average Rectified Output Current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I_{FSM}	2.5 0.5	A
Repetitive Peak Forward Surge Current	I_{FRM}	625	mA
Power Dissipation	P_D	250	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500	℃/W
Junction temperature	T_J	150	℃
Storage temperature range	T_{STG}	-65-150	℃

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	V(BR)	IR= 100μA	250		V
Reverse voltage leakage current	IR	VR=200V		1	μA
Forward voltage	VF	IF=100mA IF=200mA		1000 1250	mV
Diode capacitance	CD	VR=0V, f=1MHz		5	pF
Reveres recovery time	t_{rr}	IF=IR=30mA,Irr=0.1×IR,RL=100Ω		50	nS

TYPICAL TRANSIENT CHARACTERISTICS

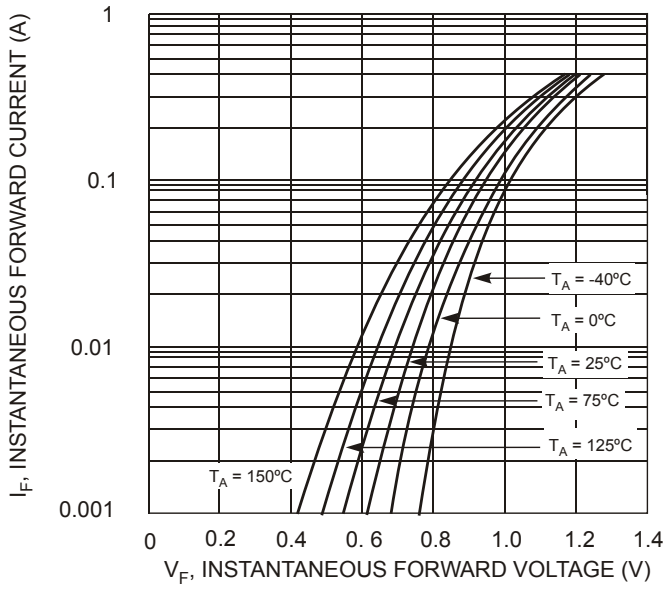


Fig. 1 Typical Forward Characteristics

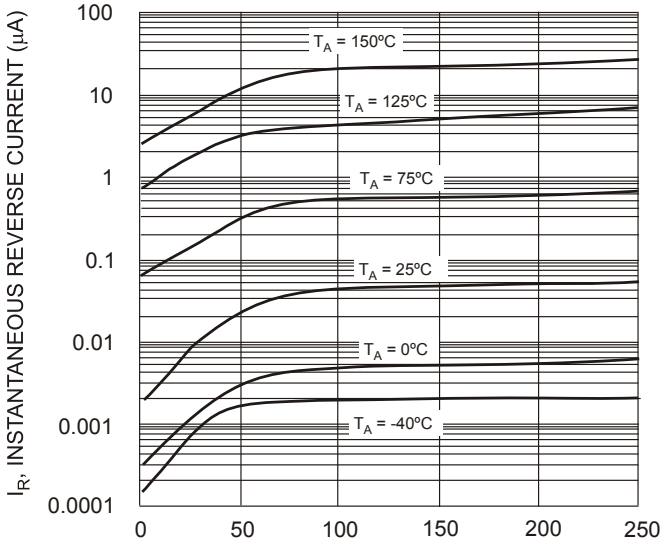


Fig. 2 Typical Reverse Characteristics

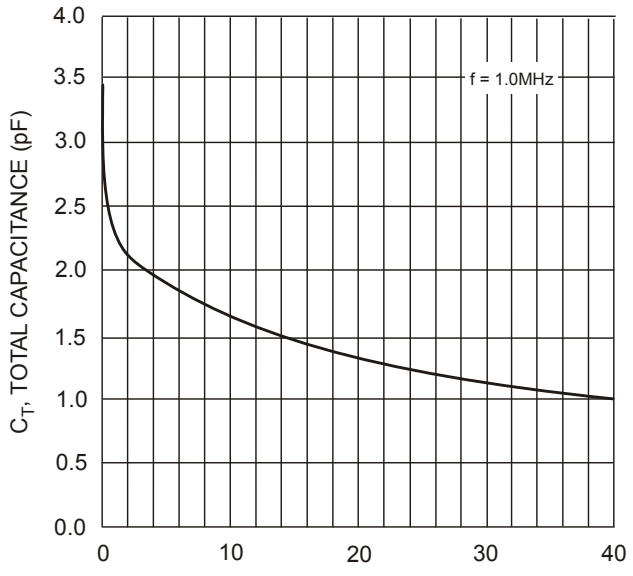


Fig. 3 Typical Capacitance vs. Reverse Voltage

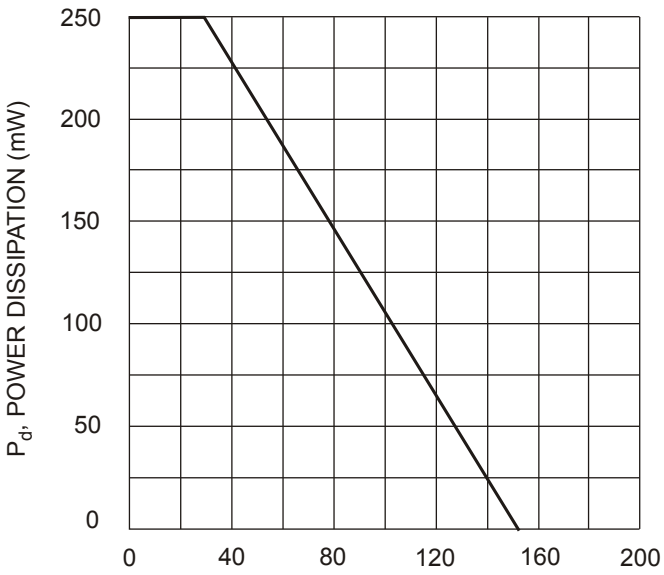


Fig. 4 Power Derating Curve, Total Package

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