



MASTER INSTRUMENT CORPORATION

BAS21 THRU BAS21S

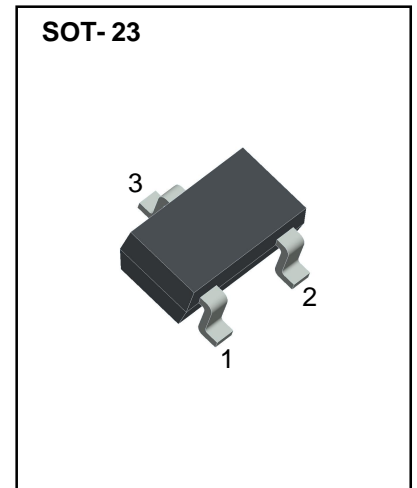
SWITCHING DIODE

Features

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

Marking:

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



Limiting Values (Absolute Maximum Rating)

Parameter	Symbol	Limit	Unit
Repetitive peak reverse voltage	V_{RRM}	250	V
Working peak reverse voltage	V_{RWM}		
DC blocking voltage	V_R		
Forward continuous current	I_{FM}	400	mA
Average rectified output current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3ms$	I_{FSM}	2.5	A
Repetitive peak forward surge current	I_{FRM}	625	mA
Power dissipation	P_D	225	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	555	$^{\circ}C/W$
Junction temperature	T_J	150	$^{\circ}C$
Storage temperature range	T_{STG}	-6~ +150	$^{\circ}C$

Electrical Characteristics (Ta=25 $^{\circ}C$ Unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu A$	250		V
Reverse voltage leakage current	I_R	$V_R=200V$		0.1	μA
Forward voltage	V_F	$I_F=100mA$ $I_F=200mA$		1000 1250	mV
Diode capacitance	C_D	$V_R=0V, f=1MHz$		5	pF
Reveres recovery time	t_{rr}	$I_F=I_R=30mA, I_{rr}=0.1 \times I_R, R_L=100 \Omega$		50	ns

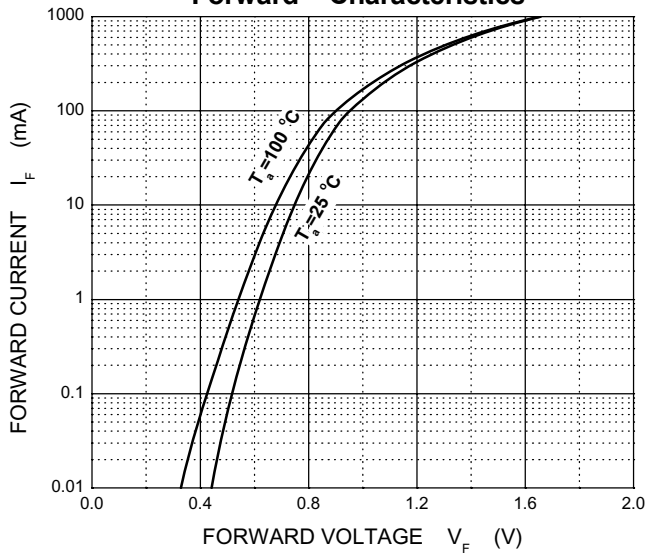


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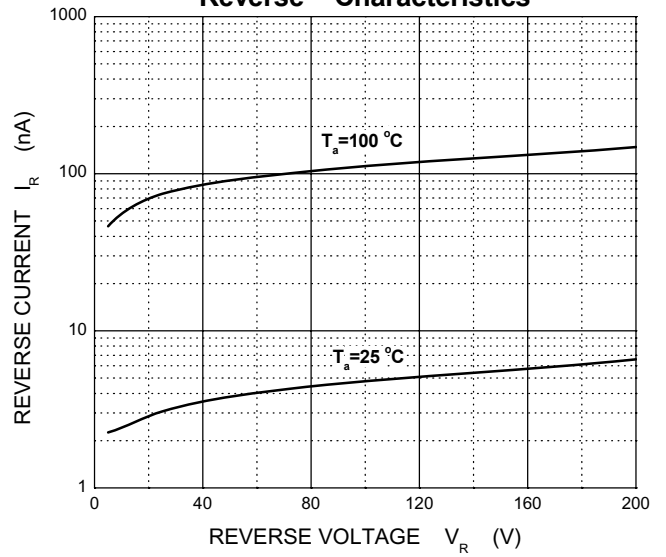
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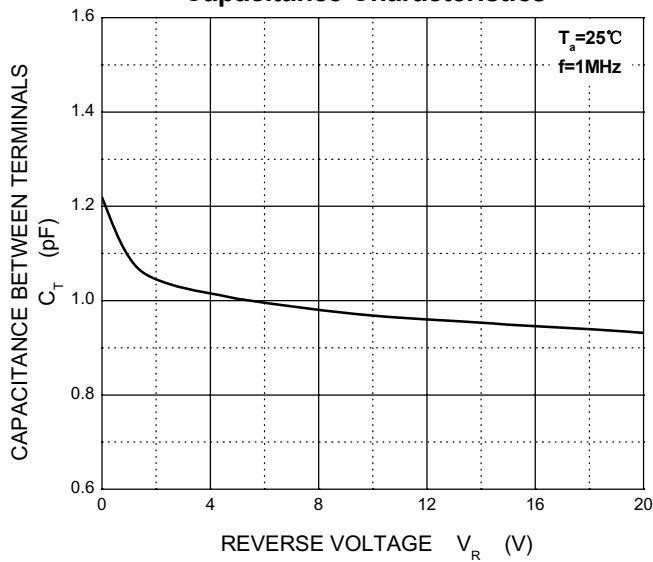
Forward Characteristics



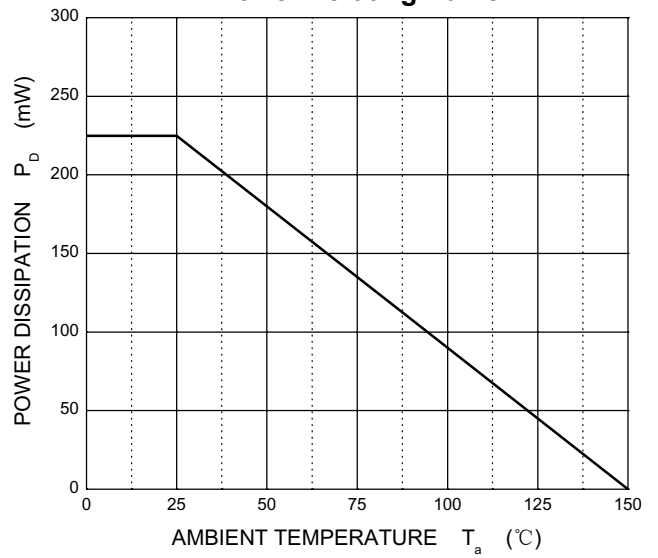
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

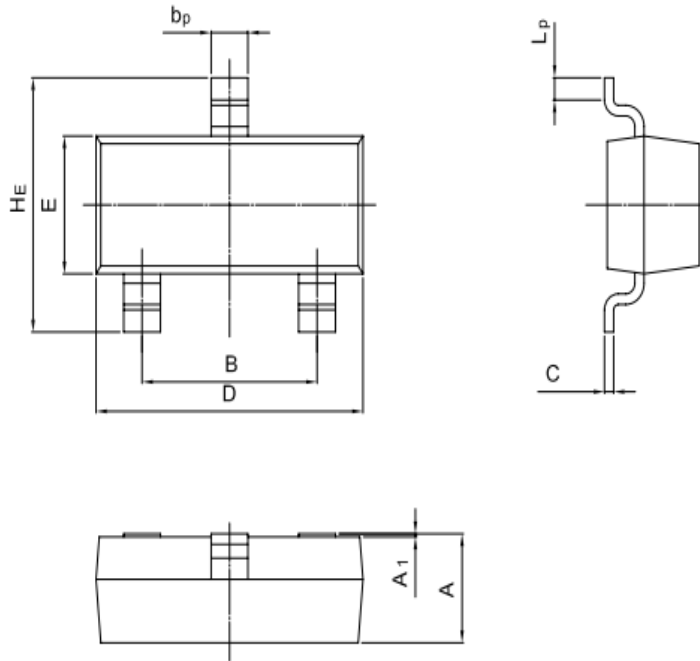




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UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20