



BAS21A/C/S

SURFACE MOUNT, HIGH VOLTAGE, DUAL SWITCHING DIODES

VOLTAGE 250 Volts **POWER** 250mWatts

SOT-23

Unit : inch(mm)

FEATURES

- High reverse breakdown voltage.
- Fast switching speed.
- Low reverse leakage current.
- Surface mount package ideally suited for automatic insertion.
- Galvanically isolated dual configurations to save board space.
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

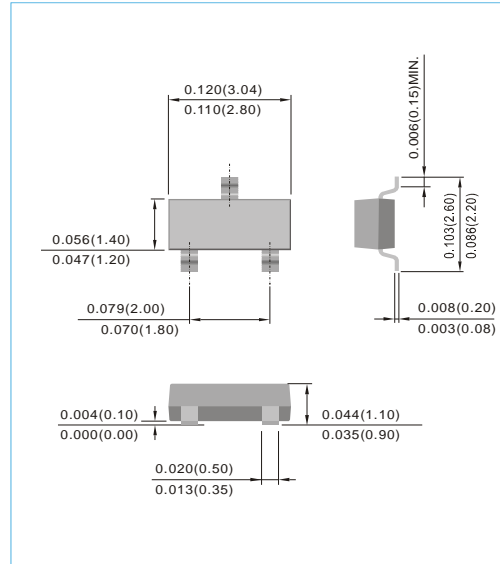
MECHANICAL DATA

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.008 grams

Marking: BAS21A:21A, BAS21C:21C, BAS21S:21S

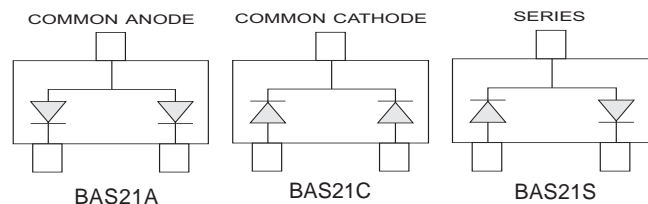


ABSOLUTE RATINGS

Parameter	Symbol	Value	Units
Maximum Reverse Voltage	V_R	250	V
Peak Reverse Voltage	V_{RRM}	250	V
Average Rectified Current at Temp=25°C	I_O	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1\mu s$	I_{FSM}	4	A

THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation	P_{TOT}	250	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	357	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 to 150	°C





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ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu A$	--	--	250	V
Reverse Current	I_R	$V_R=200V$ $V_R=200V, T_J = 150^\circ C$	--	--	0.1 100	μA
Forward Voltage	V_F	$I_F=1mA$ $I_F=100mA$	--	--	0.7 1	V
Maximum Junction Capacitance	C_J	$V_R=0V, f=1MHz$	--	--	5	pF
Reverse Recovery Time	T_{rr}	$I_F=I_R=30mA, R_L=100\Omega$	--	--	50	ns

ELECTRICAL CHARACTERISTICS CURVES

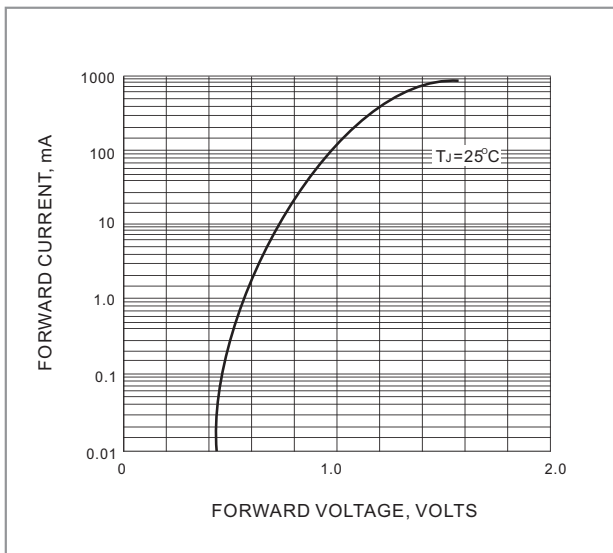


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

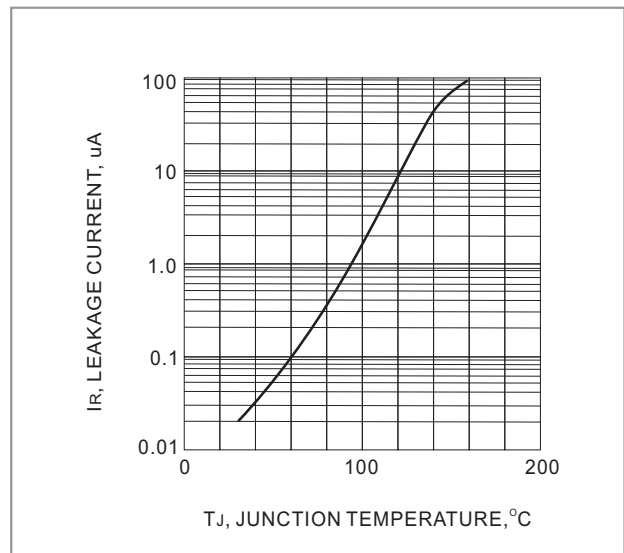


Fig.2 LEAKAGE CURRENT vs JUNCTION TEMPERATURE

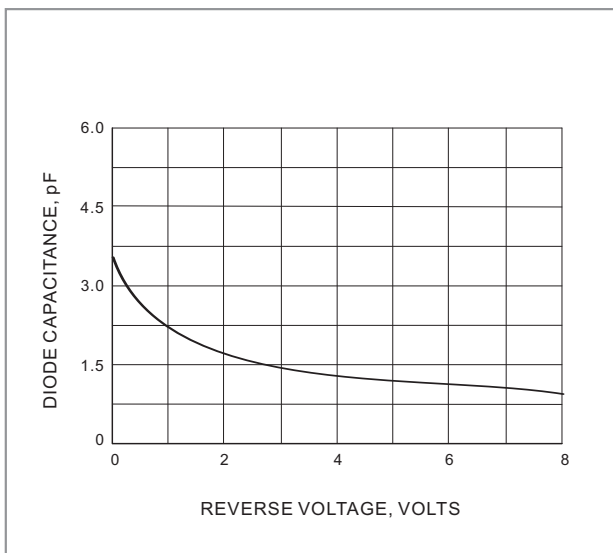


FIG. 3 TYPICAL JUNCTION CAPACITANCE

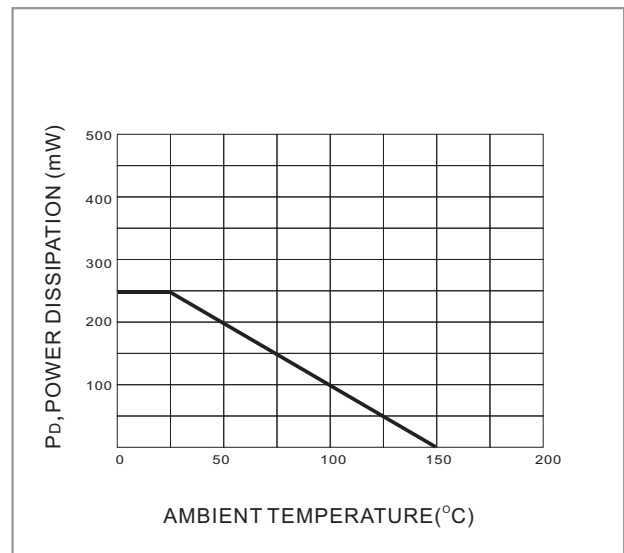


FIG. 4 POWER DERATING CURVE

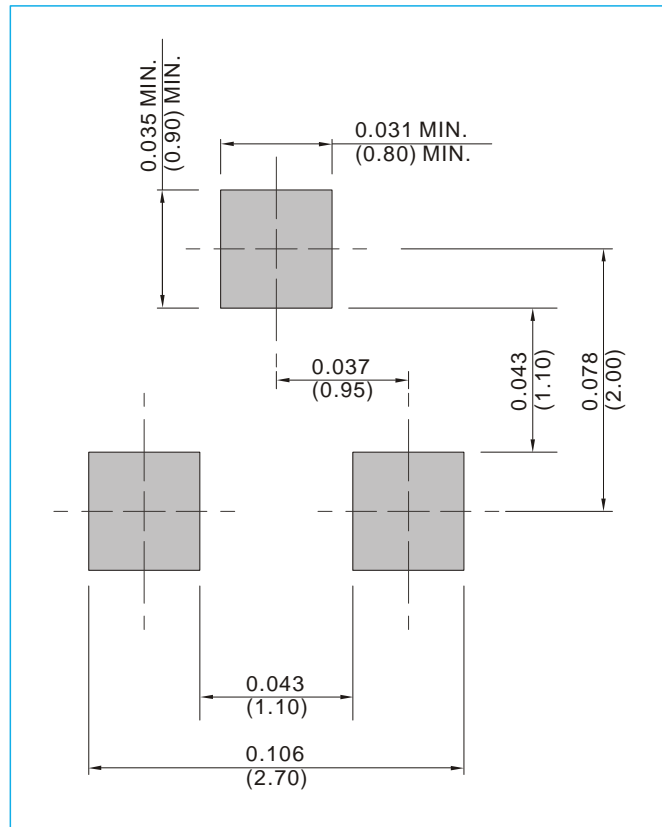


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MOUNTING PAD LAYOUT

SOT-23

Unit : inch(mm)



ORDER INFORMATION

- Packing information
T/R - 12K per 13" plastic Reel
T/R - 3K per 7" plastic Reel



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Part No_packing code_Version

BAS21A_R1_00001

BAS21A_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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