

GSDBAV21D1F

Switching Diode

Product Description

The GSDBAV21 consists of 250 V surface mount switching diodes with 410 mW. These products are designed for applications requiring high switching speed and low leakage current in a SOD-123 package, making it ideal for general-purpose applications in surface-mounted devices (SMD), offering excellent performance and reliability. Additionally, the product is green molding compound compliant with the IEC 61249 standard and EU RoHS 2.0 for environmentally friendly performance.

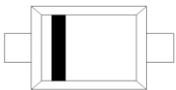
Features

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance

Mechanical Data

- Case: SOD-123, Molded Plastic
- Epoxy Meets UL 94 V-0 Flammability Rating
- RoHS Compliant and Halogen Free
- Green molding compound as per IEC 61249 standard

Packages & Pin Assignments

SOD-123	Equivalent Circuit
 <p>*Band indicates Cathode</p>	

Ordering and Marking Information

Ordering Information			
Part Number	Package	Marking Code	Quantity/Reel
GSDBAV21D1F	SOD-123	T3 •	3,000 PCS
GSDBAV21D1F - Product Code: GSDBAV21 - Package Code: D1 for SOD-123 Package - Green Level: F for RoHS Compliant and Halogen Free			
Marking Information			
 <p>Product Code: T3 •</p>			

GSDBAV21D1F

Absolute Maximum Ratings (T_A=25°C Unless Otherwise specified)

Symbol	Parameter	Value	Units
V _{RM}	Non-Repetitive Peak Reverse Voltage	250	V
V _{R(RM)}	Repetitive Peak Reverse Voltage	200	V
V _{R(RMS)}	RMS Reverse Voltage	141	V
I _O	Average Rectified Output Current	200	mA
I _{FSM}	Non-Repetitive Peak Forward Surge Current (@t=1.0 us)	4.0	A
P _D	Power Dissipation	410	mW
R _{θJA}	Thermal Resistance from Junction to Ambient	305	°C/W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-65 to +150	°C

These ratings are limiting Values above which the serviceability of the diode may be impaired.

Electrical Characteristics (T_A=25°C Unless Otherwise Note)

Symbol	Parameter	Test Condition	Min	Max	Units
V _F	Forward Voltage	I _F =100mA		1	V
		I _F =200mA		1.25	V
I _R	Reverse Current	V _R = 200V		0.1	μA
C _{ToT}	Total Capacitance	V _R = 0V, f = 1MHz		5	pF
t _{rr}	Reverse Recovery Time	I _F = I _R =30mA, I _{RR} = 0.1x I _R R _L = 100Ω		50	ns

Typical Characteristics

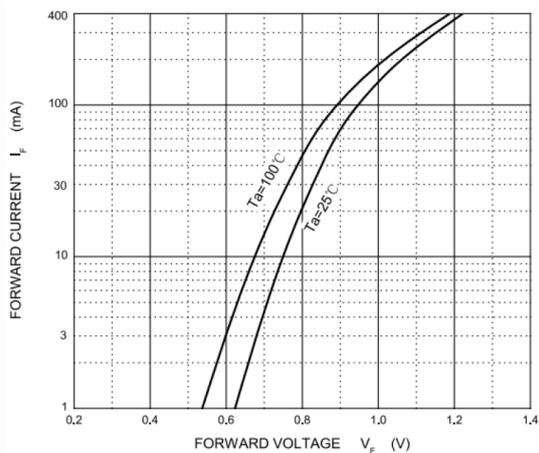


Fig. 1 Forward Characteristics

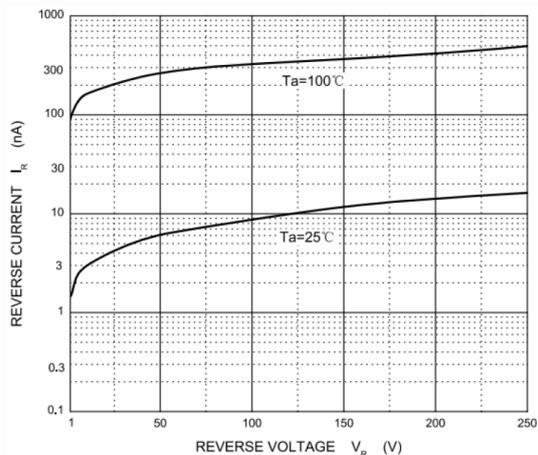


Fig. 2 Reverse Characteristics

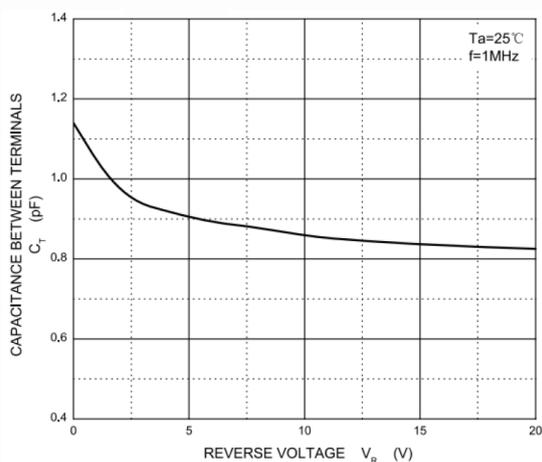


Fig. 3 Capacitance Characteristics

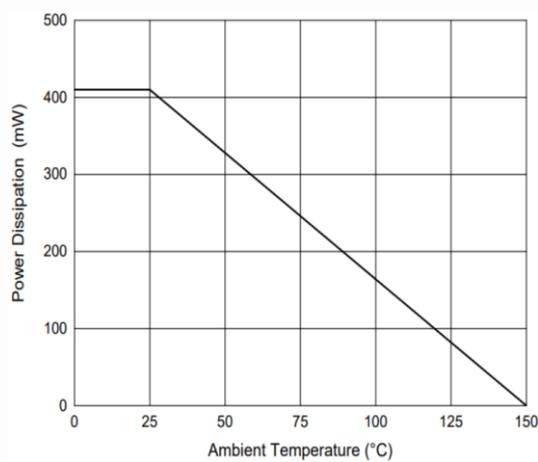
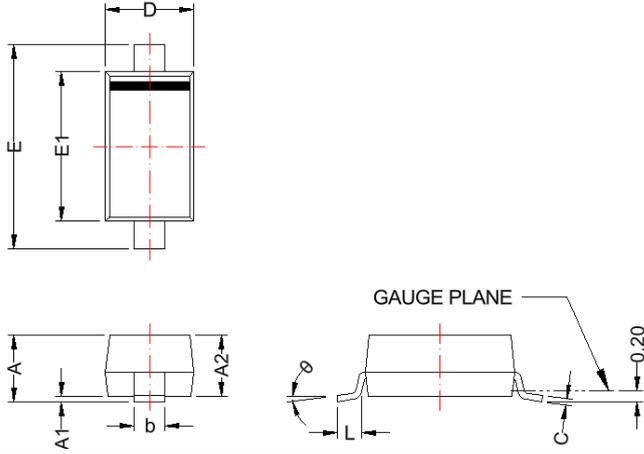


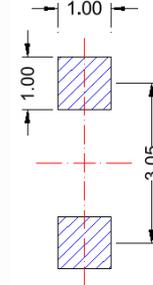
Fig. 4 Power Derating Curve

SOD-123

Package Dimension



Recommended Land Pattern



Unit:mm

Dimensions

SYMBOL	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	1.05	1.25	0.041	0.049
A1	0.00	0.10	0.000	0.004
A2	1.05	1.15	0.041	0.045
b	0.45	0.65	0.018	0.026
c	0.08	0.15	0.003	0.006
D	1.50	1.70	0.059	0.067
E	3.55	3.85	0.140	0.152
E1	2.60	2.80	0.102	0.110
L	0.25	0.45	0.010	0.018
θ	0°	8°	0°	8°

NOTE:

Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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