

GSDMMBD4148 Series

Switching Diode

Product Description

Switching Diode 150mA / 75V

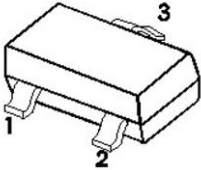
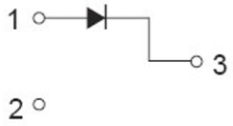
Features

- Fast Switching Speed
- High Stability and High Reliability
- Low Reverse Leakage

Mechanical Data

- SOT-23 Package
- Epoxy UL: 94V-0
- RoHS Compliant and Halogen Free

Packages & Pin Assignments

SOT-23			Equivalent Circuit		
					
Pin	Symbol	Description	Pin	Symbol	Description
1	A	Anode	2	N.C.	No Connection
3	C	Cathode			

Ordering and Marking Information

Ordering Information			
Part Number	Package	Marking Code	Quantity/Reel
GSDMMBD4148JZF	SOT-23	KA2 or 5D	3,000 PCS
- Product Code: GSD1N4148 - Package Code: JZ for SOT-23 Package - Green Level: F for RoHS Compliant and Halogen Free			
Marking Information			
Product Code: KA2 or 5D			

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Symbol	Parameter	Value	Units
V _{RM}	Non-Repetitive Peak Reverse Voltage	75	V
V _{RRM}	Repetitive Peak Reverse Voltage	75	V
I _O	Average Rectified Output Current	150	mA
I _{FSM}	Non-Repetitive Peak Forward Surge Current (t _p =1ms)	2	A
P _D	Power Dissipation	350	mW
R _{θJA}	Thermal Resistance from Junction to Ambient	357	°C/W
T _J	Max Junction Temperature	+150	°C
T _{STG}	Storage Temperature Range	-55 to + 150	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Max	Units
V _{BR}	Breakdown Voltage	I _R = 100μA	75		V
I _R	Reverse Leakage Current	V _R = 20V		25	nA
		V _R = 75V		2.5	μA
V _F	Forward Voltage	I _F = 1mA		0.715	V
		I _F = 50mA		1	
		I _F = 150mA		1.25	
C _T	Capacitance	V _R = 0V, f = 1MHz		2	pF
t _{rr}	Reverse Recovery Time	I _F = I _R = 10mA, I _{RR} = 1mA, R _L = 100Ω		4	ns

Typical Characteristics

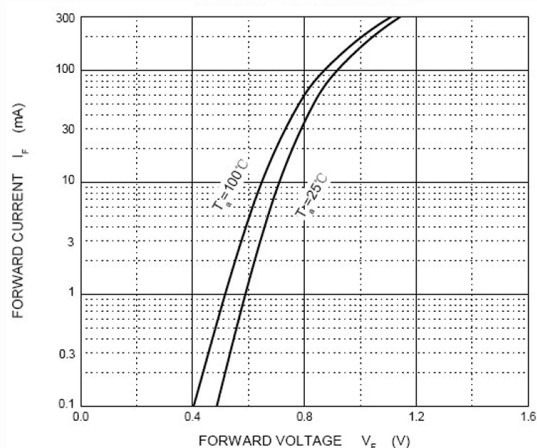


Fig. 1 Forward Characteristics

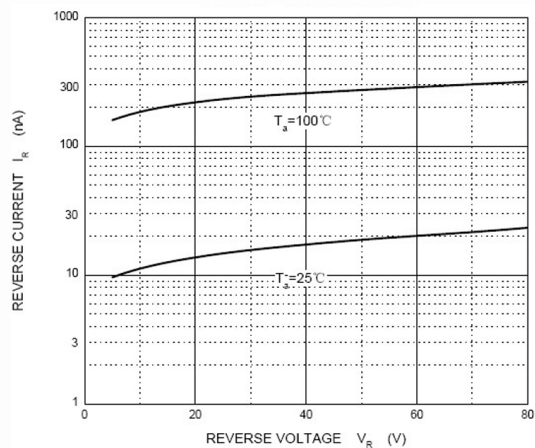


Fig. 2 Reverse Characteristics

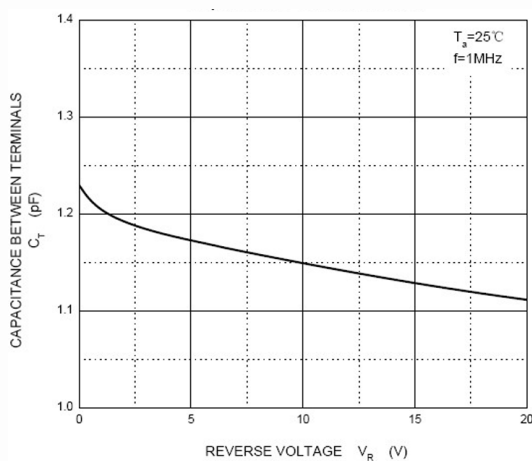


Fig. 3 Capacitance Characteristics

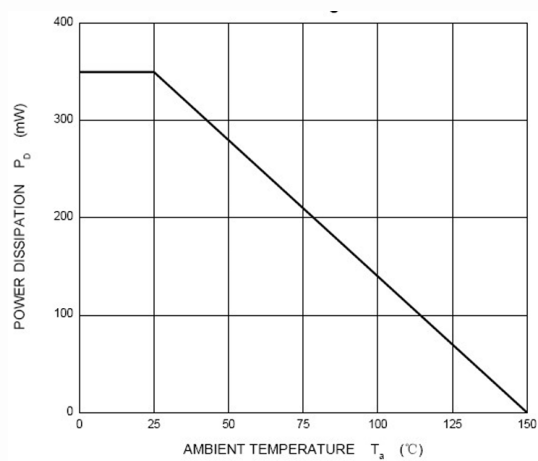
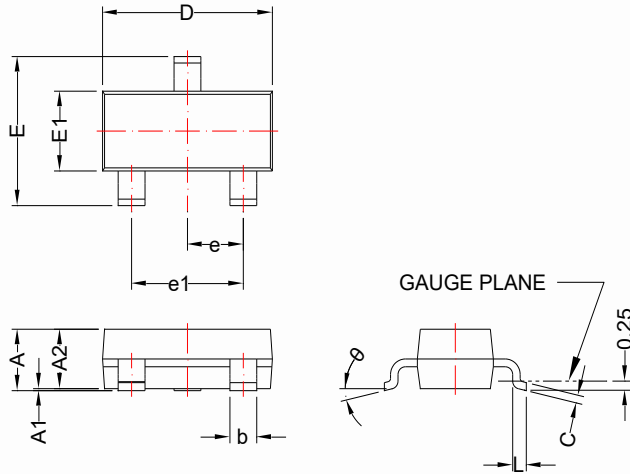


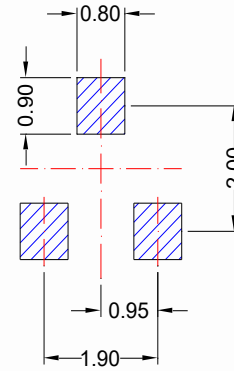
Fig. 4. Power Derating Curve

SOT-23

Package Dimension



Recommended Land Pattern



Unit: mm

Dimensions				
Symbol	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	0.75	1.17	0.030	0.046
A1	0.00	0.15	0.000	0.006
A2	0.70	1.05	0.028	0.041
b	0.30	0.50	0.012	0.020
c	0.08	0.20	0.003	0.008
D	2.80	3.04	0.110	0.120
E	2.10	2.64	0.083	0.104
E1	1.20	1.40	0.047	0.055
e	0.95 BSC		0.037 BSC	
e1	1.90 BSC		0.075 BSC	
L	0.3	0.6	0.012	0.024
θ	0°	8°	0°	8°

NOTE:

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

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