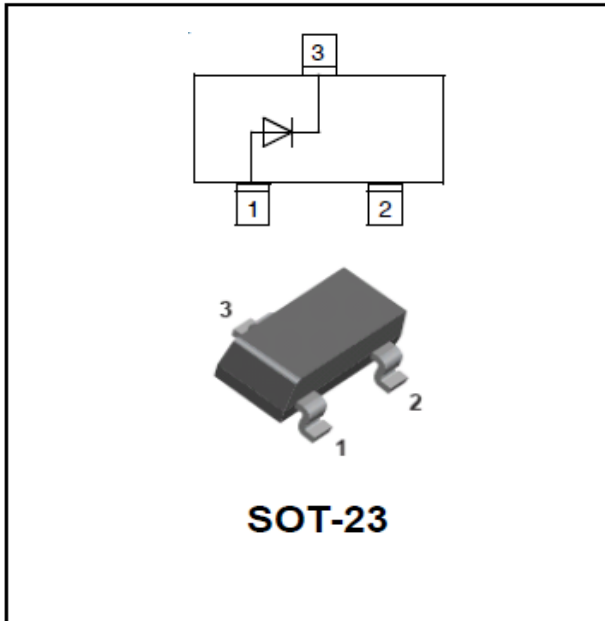


## Switching Diode



### Features

- Epoxy meets UL-94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High Conductance
- Surface mount package ideally Suited for Automatic Insertion

### Mechanical Data

- **Package:** SOT-23  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** KA2

### ■ Maximum Rating, ( $T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Value
Reverse Voltage	$V_R$	V	100
Forward Continuous Current, Per Leg	$I_F$	mA	150
Non-Repetitive Peak Forward Surge Current@ $t=1\text{s}$ ,	$I_{FSM}$	A	1
Power Dissipation	$P_D$	mW	350
Operation Junction Temperature	$T_J$	$^{\circ}\text{C}$	-55 to +150
Storage Temperature	$T_{STG}$	$^{\circ}\text{C}$	-55 to +150

### ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMBD4148	F2	Approximate 0.008	3000	30000	120000	7" reel

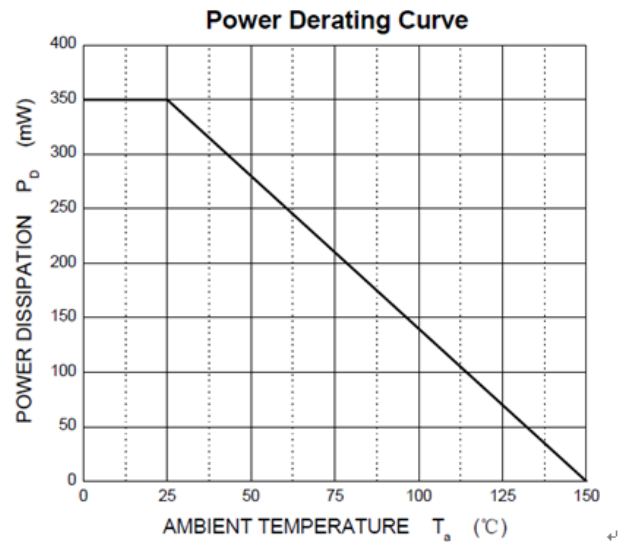
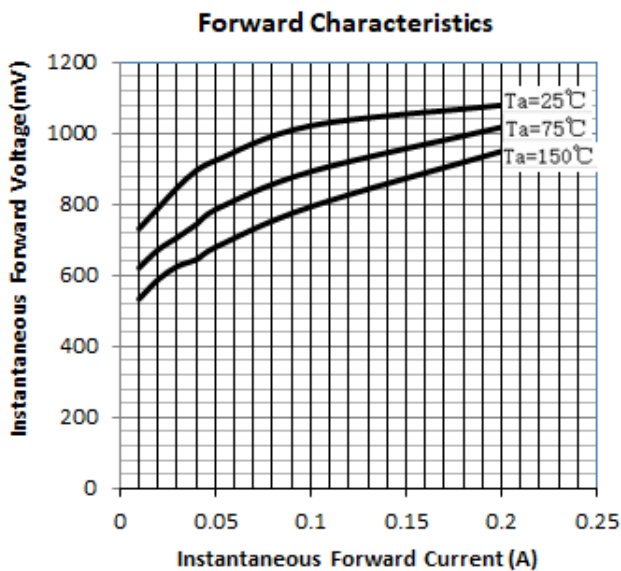


# MMBD4148

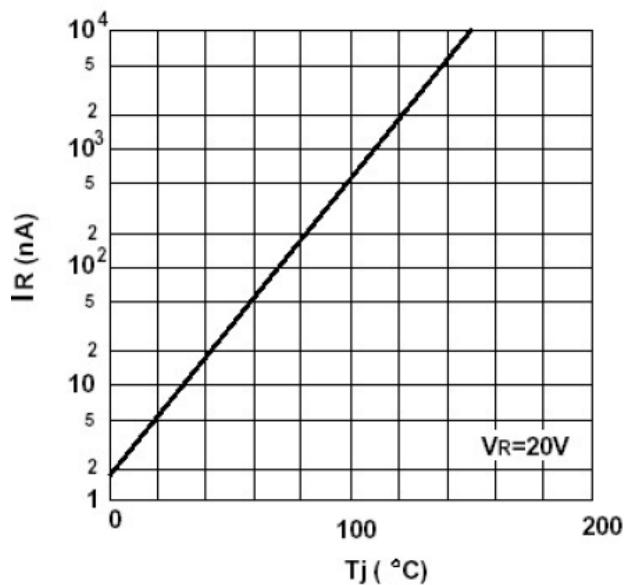
## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified, Per Leg)

Item	Symbol	Unit	Conditions	Value
Reverse Voltage	V <sub>R</sub>	V	I <sub>R</sub> =100uA	100
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	V	I <sub>FM</sub> =10mA, T <sub>J</sub> =25°C	0.855
			I <sub>FM</sub> =100mA, T <sub>J</sub> =25°C	1.2
Maximum DC Reverse Current	I <sub>R</sub>	nA	V <sub>R</sub> =20V	25
		uA	V <sub>R</sub> =75V	5
Typical Junction Capacitance	C <sub>J</sub>	pF	f=1.0MHz, V <sub>R</sub> =0V	4
Reverse Recovery Time	T <sub>rr</sub>	ns	I <sub>F</sub> =10mA, V <sub>R</sub> =6V, R <sub>L</sub> =500Ω, I <sub>rr</sub> =1mA	4

## ■ Typical Characteristics (Per Leg)



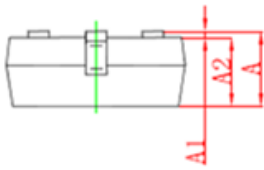
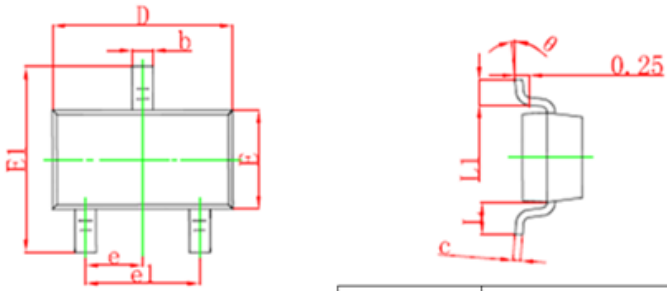
Leakage current versus junction temperature





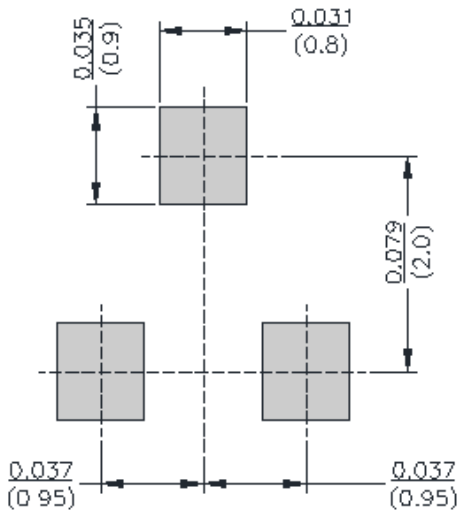
# MMBD4148

## ■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°		8°	

## ■SOT-23Suggested Pad Layout





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