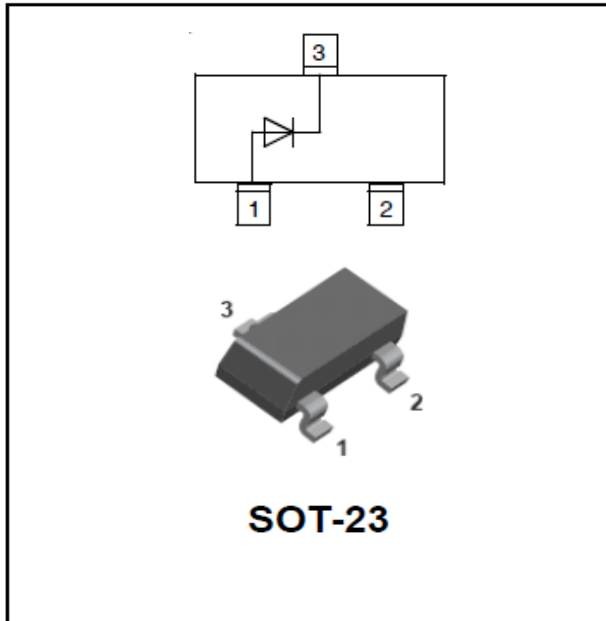


Switching Diode



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
Peak Repetitive Reverse Voltage	V_{RRM}	V	100
Reverse Voltage	V_R	V	100
Forward Continuous Current, Per Leg	I_F	mA	200
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$, half sine-wave	I_{FSM}	A	2
Power Dissipation	P_D	mW	350
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	$^{\circ}\text{C}/\text{W}$	357
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	F4	Approximate 0.008	10000	/	210000	13" reel

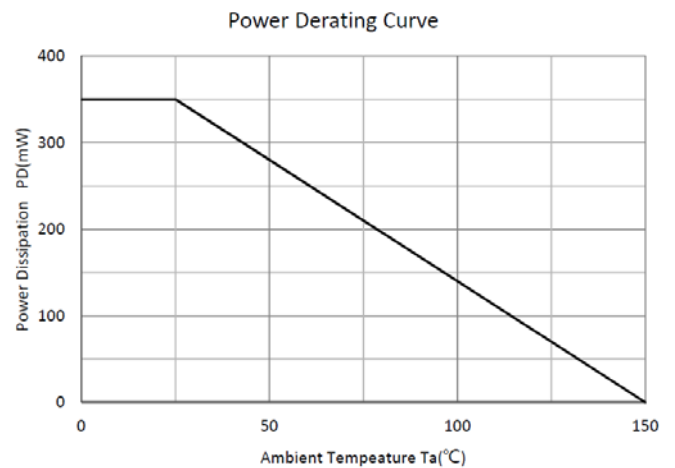
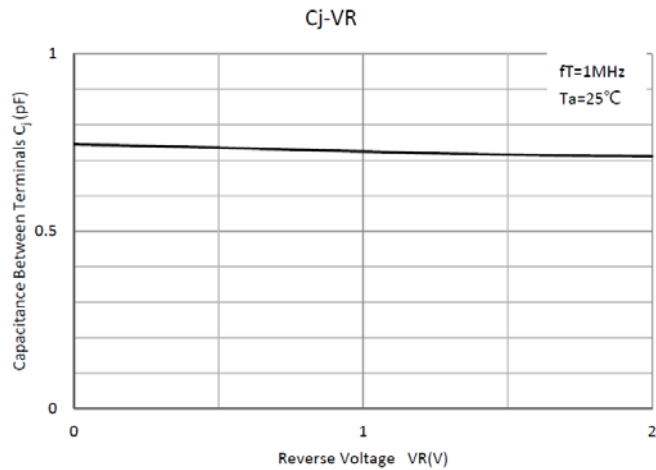
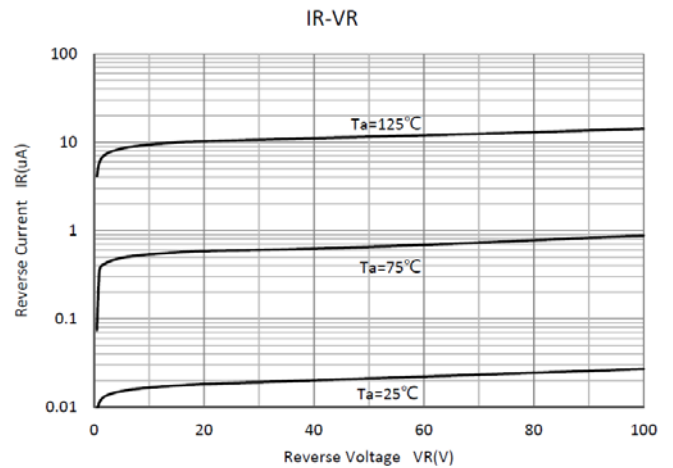
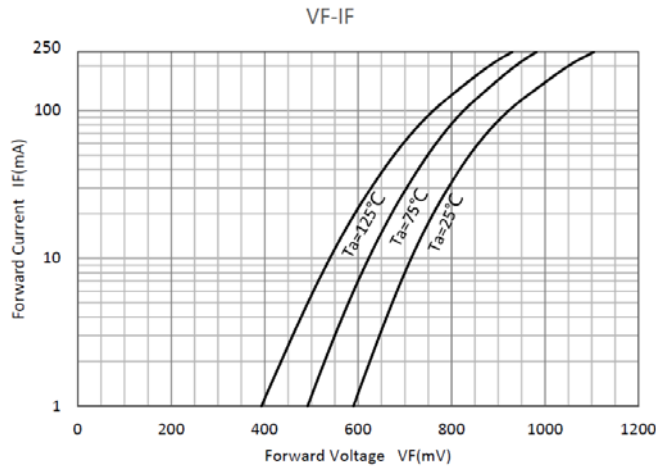


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■ Electrical Characteristics (Ta=25°C Unless otherwise specified, Per Leg)

Item	Symbol	Unit	Conditions	MIN	MAX
Reverse Voltage	V_R	V	$I_R=100\mu A$	100	
Maximum Instantaneous Forward Voltage	V_F	V	$I_F=10mA, T_a=25^\circ C$		0.855
			$I_F=100mA, T_a=25^\circ C$		1.2
Maximum DC Reverse Current	I_R	nA	$V_R=20V$		25
		μA	$V_R=75V$		5
Typical Junction Capacitance	C_J	pF	$f=1.0MHz, V_R=0V$		4
Reverse Recovery Time	T_{rr}	ns	$I_F=10mA, V_R=6V, R_L=100\Omega, I_{rr}=1mA$		4

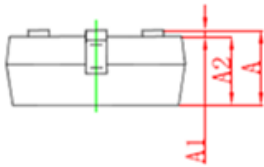
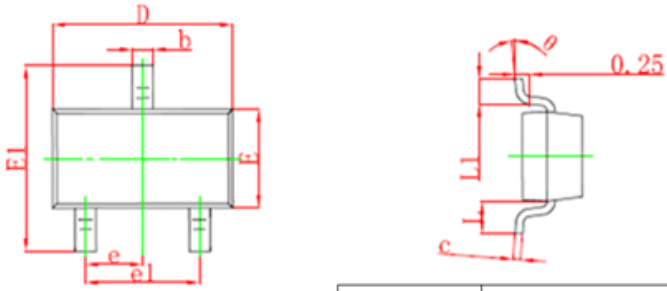
■ Typical Characteristics (Per Leg)





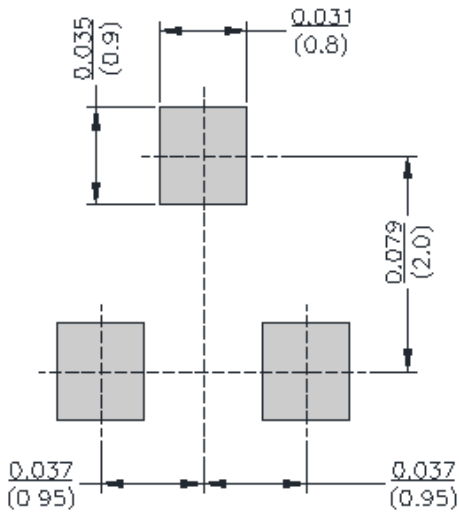
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■SOT-23 Package Outline Dimensions



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°	0°	8°

■SOT-23 Suggested Pad Layout





MMBD4148

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