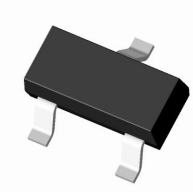
SOT-23 Plastic-Encapsulate Switching Diode

Features

- 4.0nS; Fast Switching Device (TRR <4.0 nS)
- 350mW; Power Dissipation of 350mW
- High Stability and High Reliability
- Low reverse leakage

RoHS
COMPLIANT

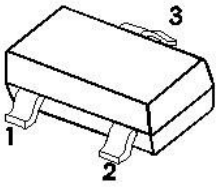


Marking: **SOT-23**

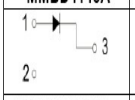
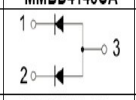
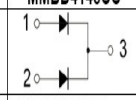
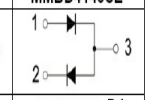
Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

Pin definition



Epuivalent circuit

MMBD4148A	MMBD4148CA	MMBD4148CC	MMBD4148SE
			
MARKING:5H	MARKING:D6	MARKING:D5	MARKING:D4

Maximum Ratings & Electrical Characteristics (TA=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	75	V
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Power Dissipation	P_D	350	mW
Average Rectified Current	I_O	200	mA
Peak Forward Surge Current@tp=1us; TA=25℃	I_{FSM}	2.0	A
Operating junction temperature range	T_J	150	°C
Storage temperature range	T_{STG}	-55 to +150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	357	℃/W

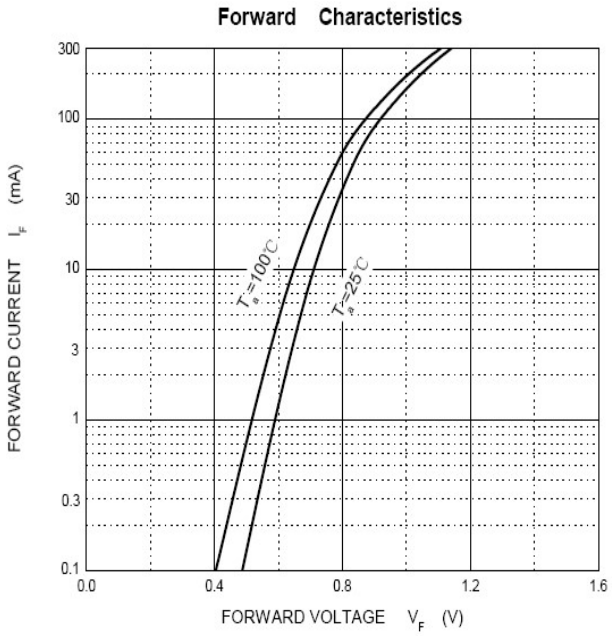
Valid provided that electrodes are kept at ambient temperature.

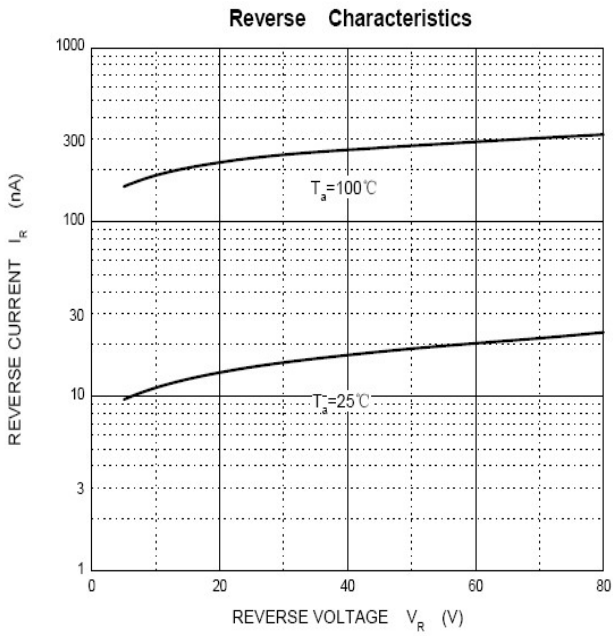
Electrical Specifications (TA=25℃ unless otherwise noted)

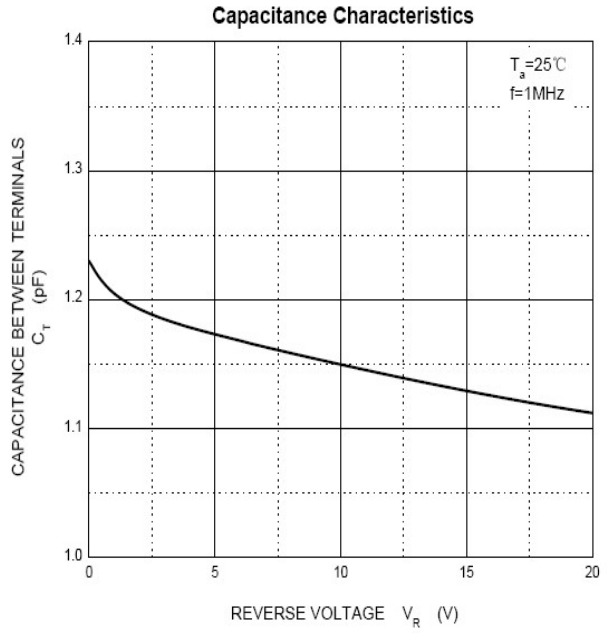
Parameter	Symbol	Test Conditions	Limits		Unit
			Min	Max	
Reverse Voltage	$V_{(BR)}$	IR=100uA	75		V
Forward Voltage	V_F	IF=10mA		1.00	V
Reverse Leakage Current	I_R	VR=75V		5.0	uA
		VR=25V		25	nA
Typical junction capacitance	C_J	VR=0V, f=1MHZ		4	pF
Typical reverse recovery time	T_{RR}	IF=IR=1.0mA RL=100Ω IRR=0.1 X IR		4	nS

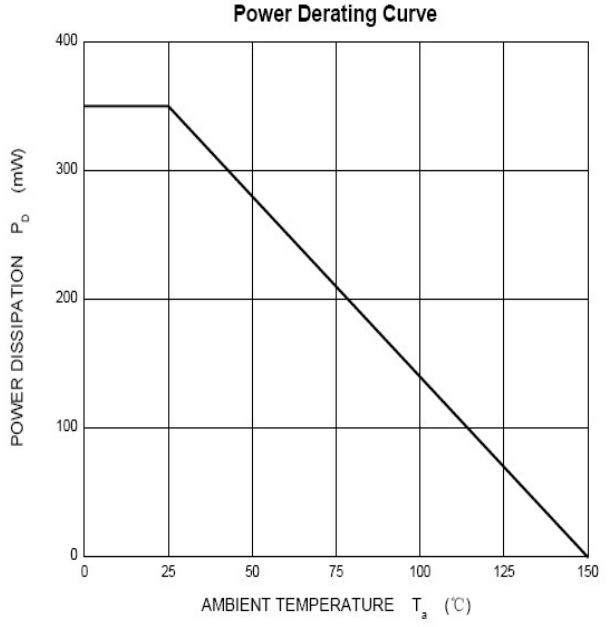
Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)



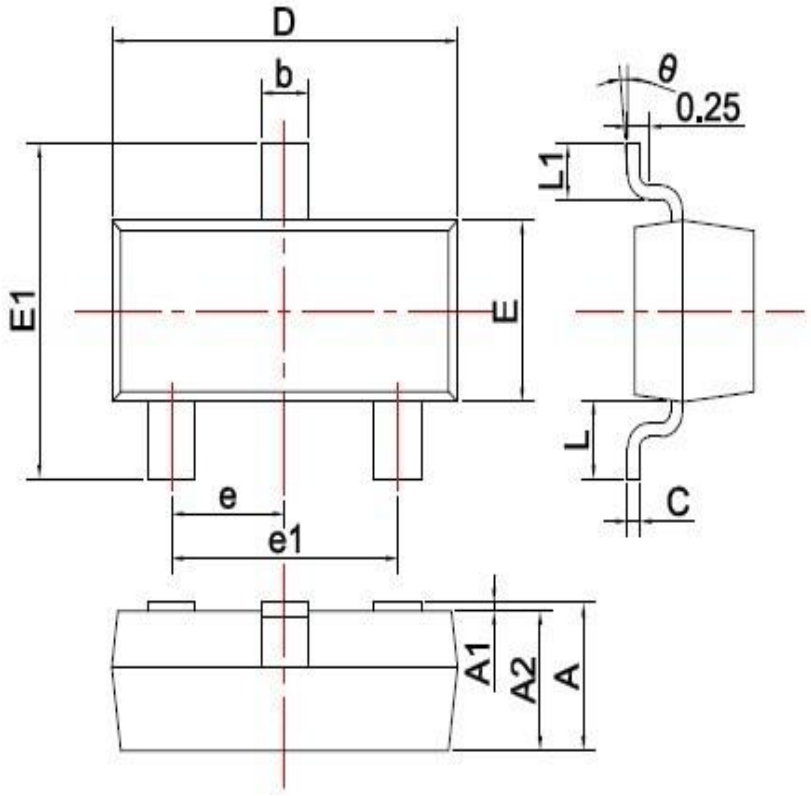






Package Outline Dimensions

in inches (millimeters)



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.07.11	First issue

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