

Surface mount switching diode

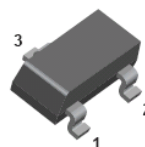
FEATURES

- Fast switching speed.
- High conductance.
- For general purpose switching applications.
- Surface mount package ideally suited for automatic insertion.

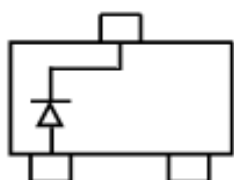


APPLICATIONS

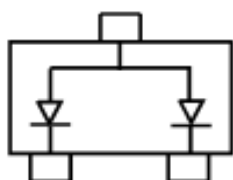
- Small signal switching



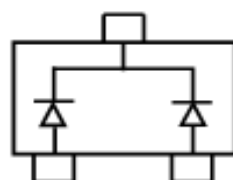
SOT23



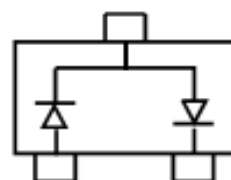
MMBD 4148 AX
MARKING:5H



MMBD 4148 CAX
MARKING:D6



MMBD 4148 CCX
MARKING:D5



MMBD 4148 SEX
MARKING:D4

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Peak Repetitive Peak reverse voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}		
DC Reverse Voltage	V_R		
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_o	200	mA
Power Dissipation	P_d	350	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357	°C/W
Junction temperature	T_j	150	°C
Storage temperature	T_{STG}	-55-150	°C



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)R1}$	100			V	$I_R=100\mu A$
	$V_{(BR)R2}$	75			V	$I_R=5\mu A$
Forward voltage	V_F			1	V	$I_F=10mA$
Reverse current	I_{R1}			25	nA	$V_R=25V$
	I_{R2}			5	μA	$V_R=75V$
Diode Capacitance	C_D			4	pF	$V_R=0V, f=1MHz$
Reverse Recovery Time	t_{rr}			4	ns	$I_F=10mA, V_R=6V$ $I_{rr}=0.1 \cdot I_R, R_L=100\Omega$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

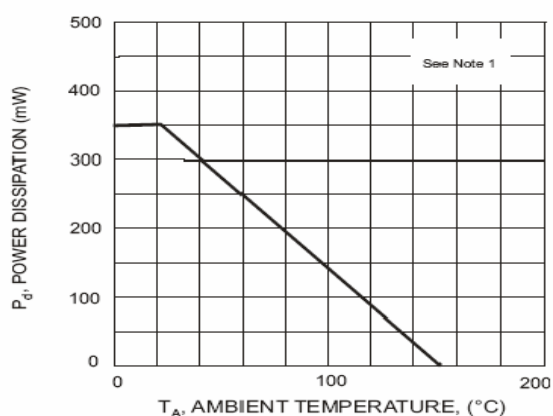


Fig. 1 Power Derating Curve

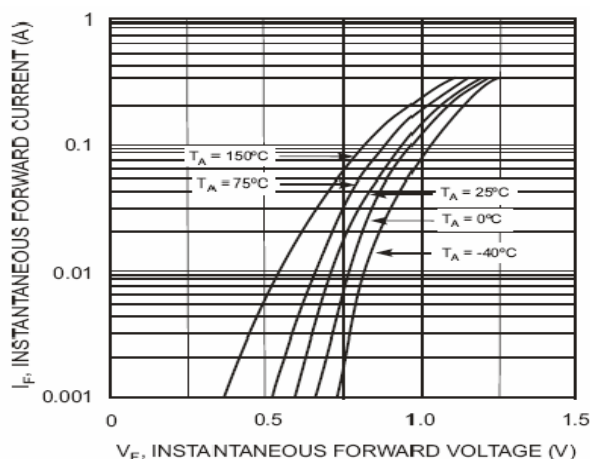


Fig. 2 Forward Characteristics

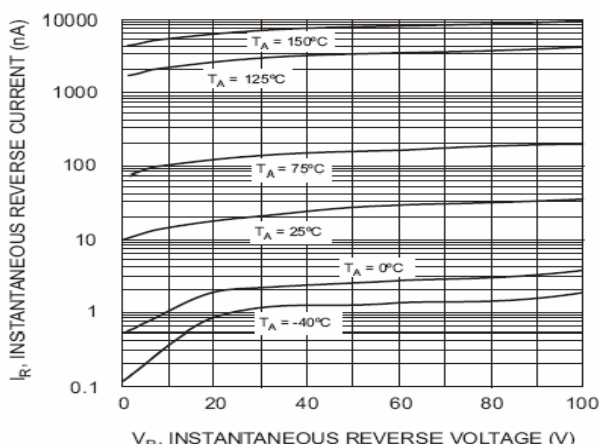


Fig. 3 Typical Reverse Characteristics

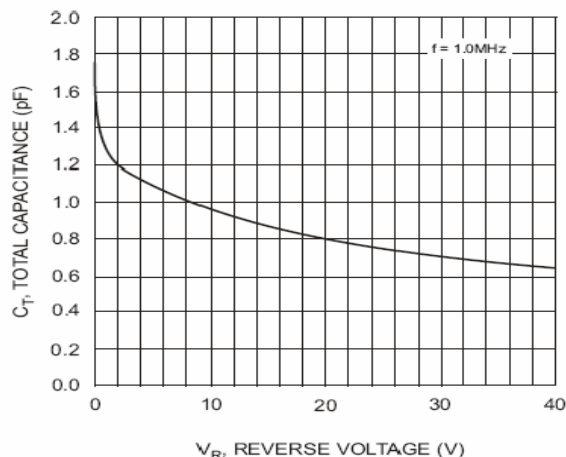


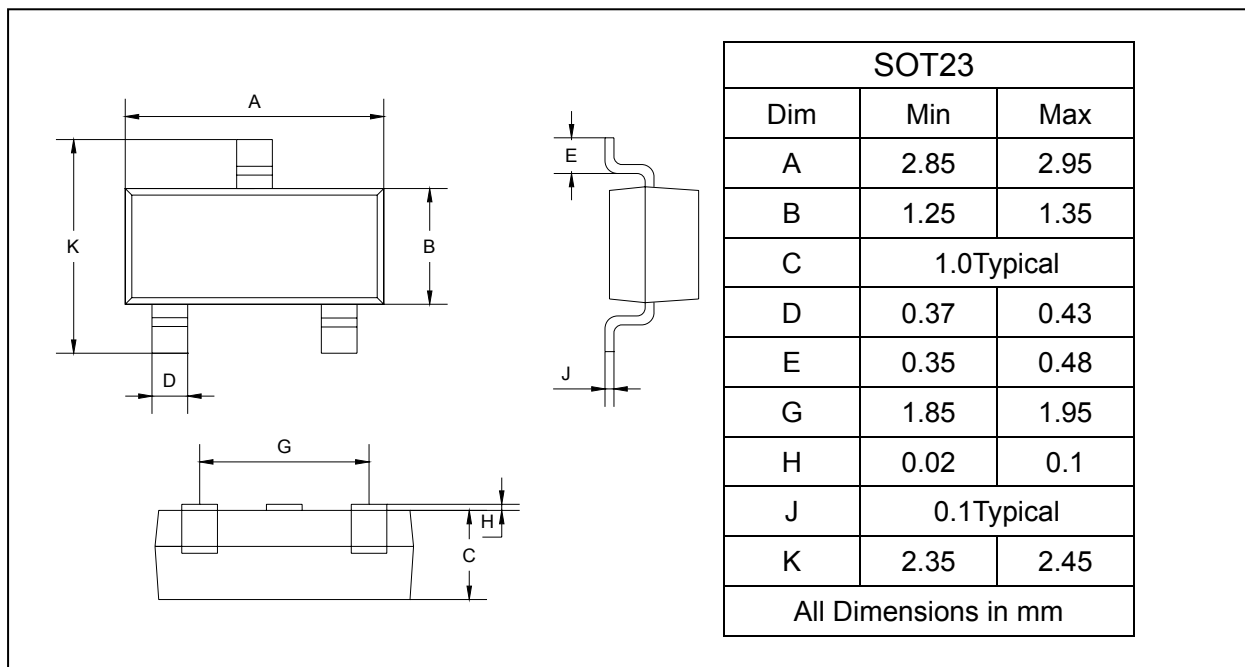
Fig. 4 Typical Capacitance vs. Reverse Voltage

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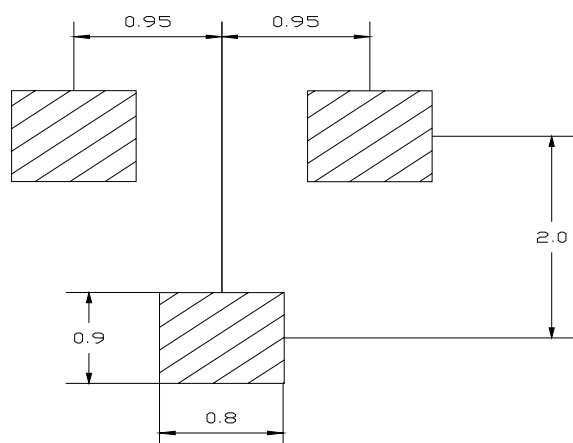
PACKAGE OUTLINE

Plastic surface mounted package

SOT23



SOLDERING FOOTPRINT



Unit : mm

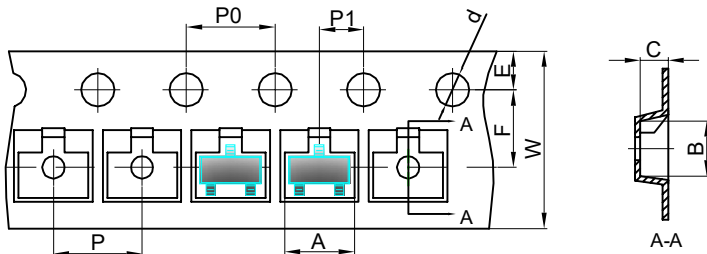
PACKAGE INFORMATION

Device	Package	Shipping
MMBD4148AX /CAX/CCX/SEX	SOT23	3000/Tape&Reel

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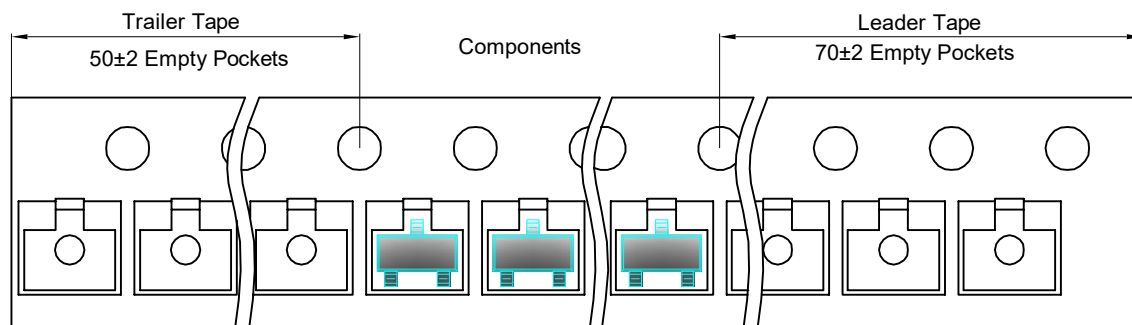
SOT23 Tape and reel

SOT23 Embossed Carrier Tape

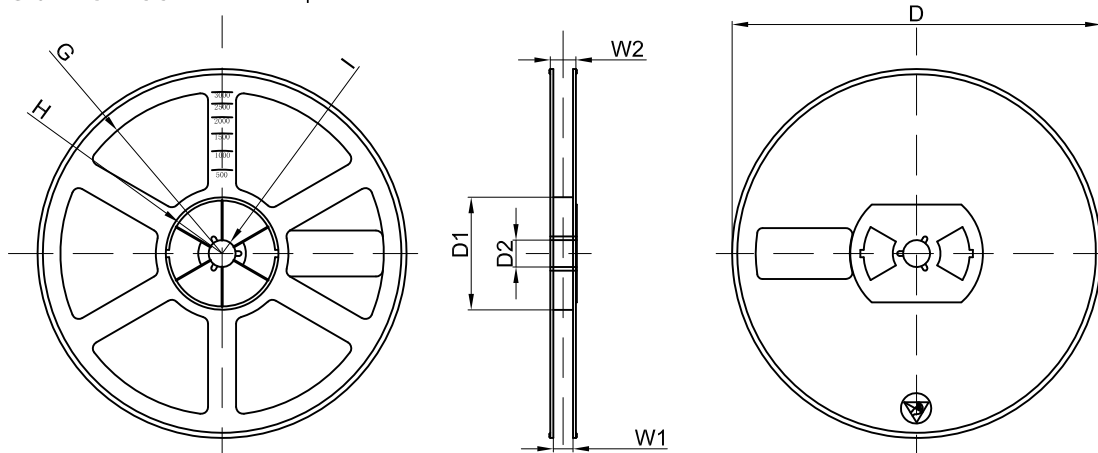


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT23 Tape Leader and Trailer



SOT23 Reel 3000 pcs



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30