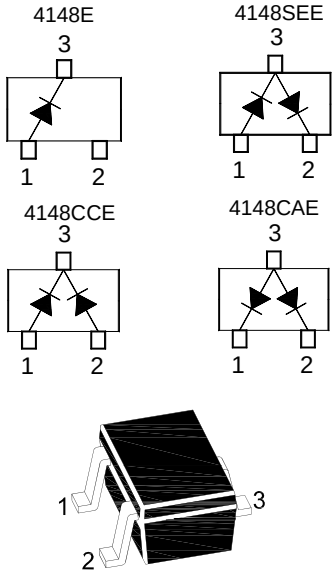
迈拓电子
MAITUO ELECTRONIC

MMBD4148E Silicon Epitaxial Planar Switching Diode

MMBD4148E MarkingCode: **A6**
MMBD4148SEE Marking Code: **A7**
MMBD4148CCE Marking Code: **PH**
MMBD4148CAE Marking Code: **YX**



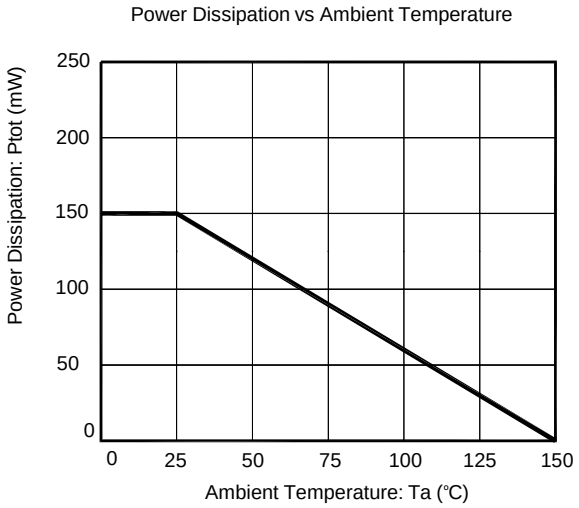
SOT-523

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	V_{RRM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
DC Forward Current	I_{FM}	600	mA
Recurrent Peak Forward Current	I_{FRM}	700	mA
Non-repetitive Peak Forward Surge Current at t = 1 s at t = 1 ìs	I_{FSM}	1 2	A
Total Device Dissipation	P_{tot}	150	mW
Operating Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I_F = 10 mA	V_F	-	1	V
Reverse Breakdown Voltage at I_R = 100 µA at I_R = 5 µA	$V_{(BR)R}$	100 75	- -	V
Reverse Current at V_R = 20 V at V_R = 75 V at V_R = 20 V, T_a = 150 °C	I_R	- - -	25 5 50	nA µA µA
Reverse Recovery Time at I_F = 10 mA, V_R = 6 V, I_{RR} = 1 mA, R_L = 100 Ω	t_{rr}	-	4	ns
Total Capacitance at V_R = 0 V, f = 1 MHz	C_{tot}	-	4	pF



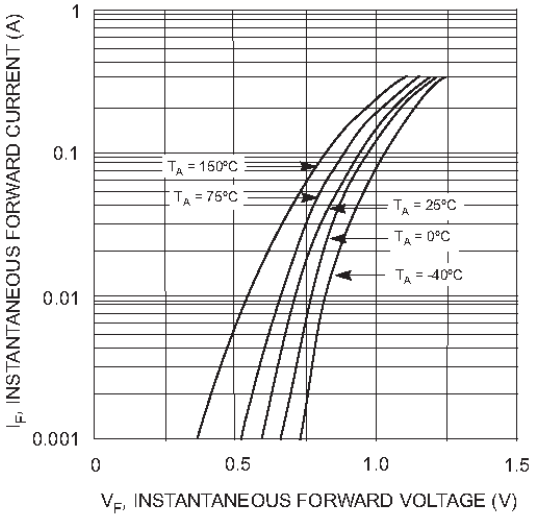


Fig. 2 Forward Characteristics

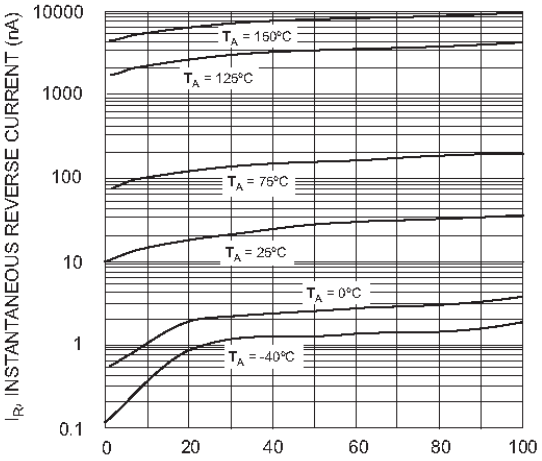


Fig. 3 Typical Reverse Characteristics

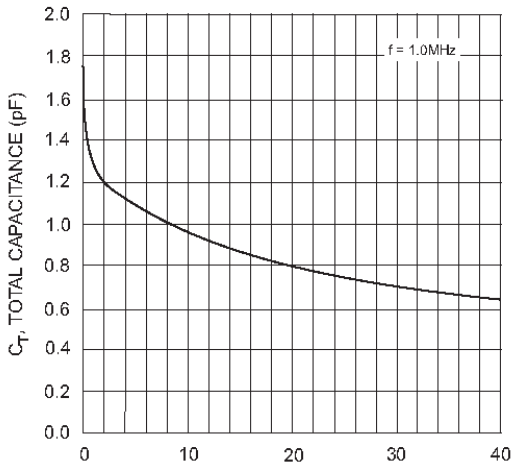


Fig. 4 Typical Capacitance vs. Reverse Voltage

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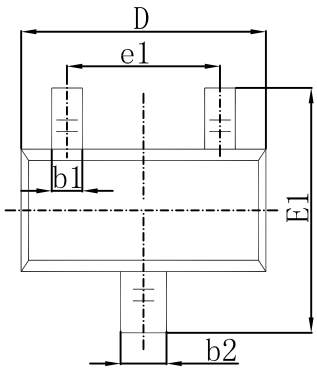
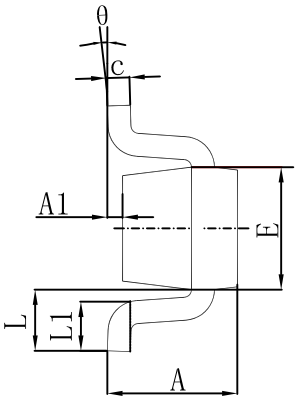
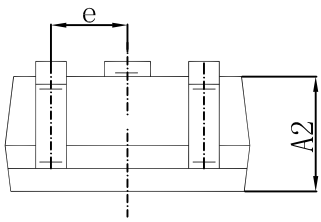
SOT-523 Package Outline Dimensions

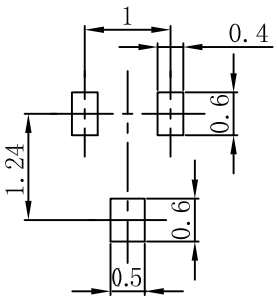






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-523 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.