High-speed Switching Diode

Description

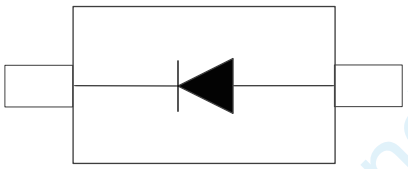
The OVW4148D2 is a high-speed switching diode fabricated in planar technology, and encapsulated in a small SOD523 plastic SMD package.

Features

✧ High switching speed: max. 4 ns
✧ Continuous reverse voltage: max. 75 V
✧ Repetitive peak reverse voltage: max. 100 V
✧ Repetitive peak forward current: max. 300 mA.

Applications

✧ High-speed switching in hybrid thick and thin-film circuits.



Circuit Diagram



SOD523

Absolute Maximum Rating（T_A = 25 °C, unless otherwisespecified）

Rating	Symbol	Value	Units
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Continuous Forward Current	I_F	300	mA
Junction temperature	Tj	150	℃
Storage temperature	T_{stg}	-55~+150	℃

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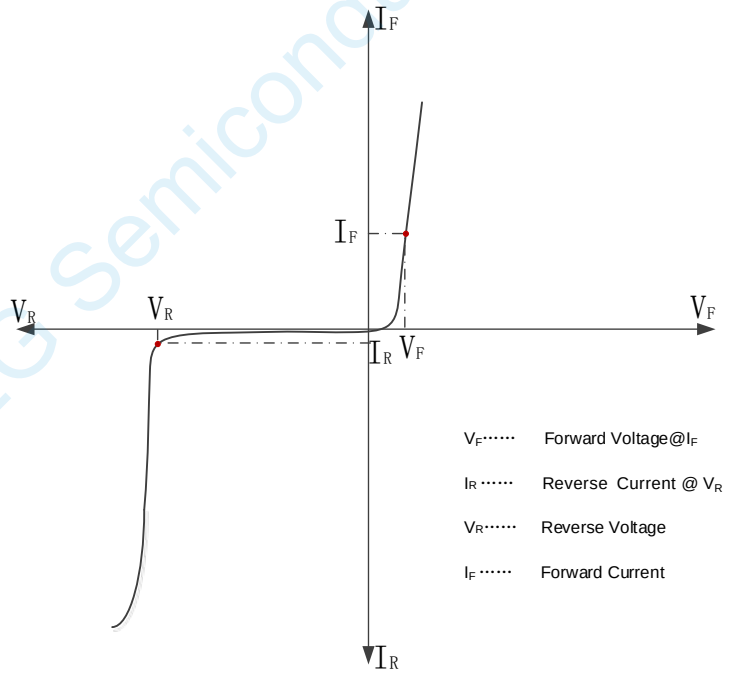
Electrical Characteristics（T_A = 25 °C, unless otherwisespecified）

Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Breakdown Voltage	V_{BR}	I_R=0.1mA	100	140		V
Reverse Current	I_{R1} I_{R2}	V_{R1} =20V V_{R2} =75V		10 20	25 1000	nA
Forward Voltage	V_F	I_F=1mA I_F=10mA I_F=50mA I_F=150mA			0.72 0.86 1.00 1.25	V
Total Capacitance	C_T	V_R=0V,f=1MHz			2	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 10mAdc $I_{R(REC)}$ = 1.0 mAdc			4	ns

Electrical Parameters（T_A = 25 °C, unless otherwisespecified）



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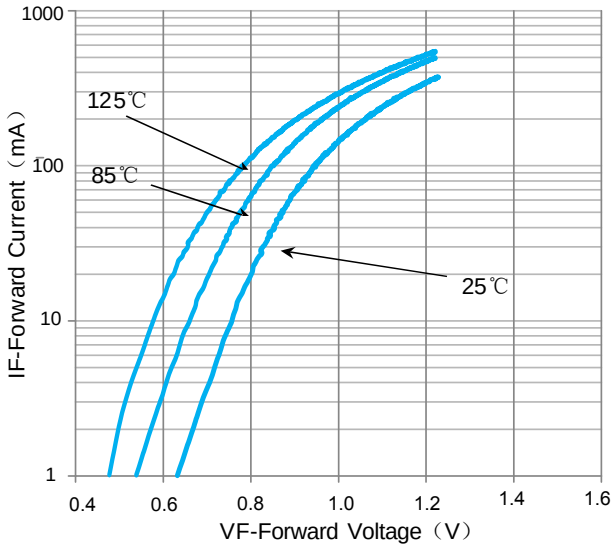
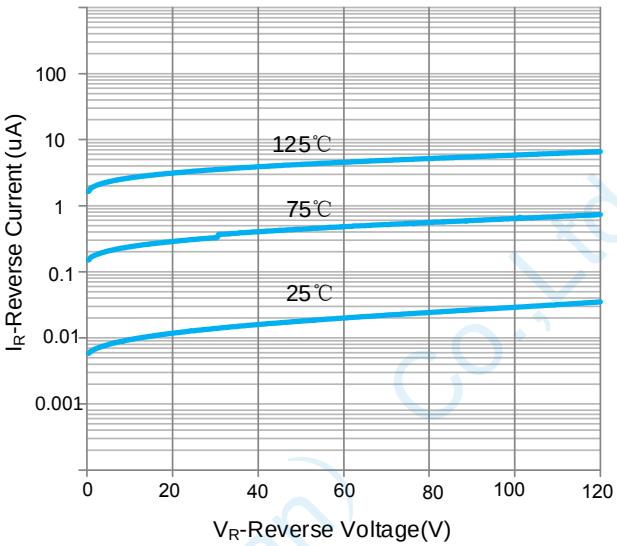
Typical Characteristics（T_A = 25 °C, unless otherwisespecified）

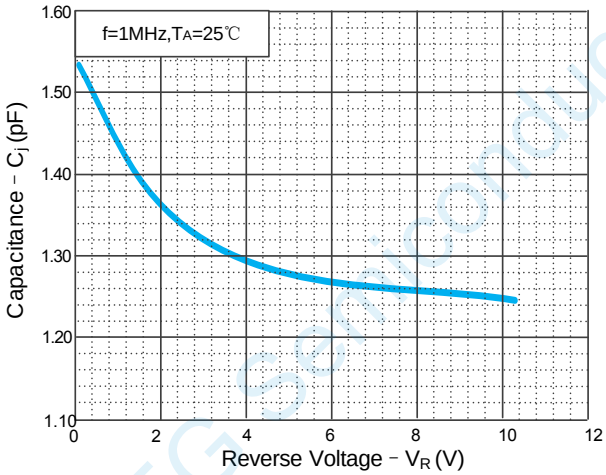
Forward Current vs. Forward Voltage



Reverse Characteristic



Capacitor Characteristics



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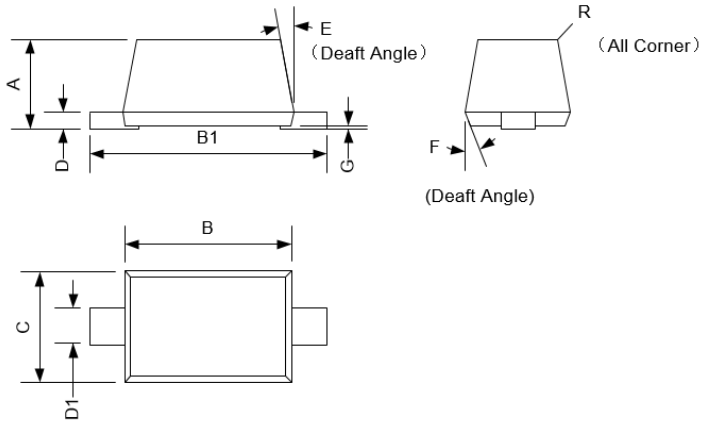
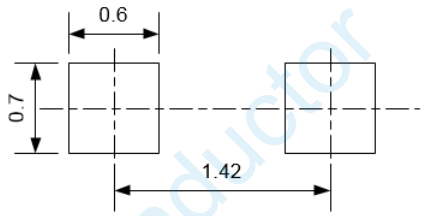
Package information



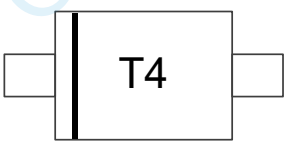
Symbol	Dim in mm		
	Min.	Nom.	Max.
A	0.600	0.650	0.700
B	1.150	1.200	1.250
B1	1.550	1.600	1.650
C	0.750	0.800	0.850
D	0.100	0.110	0.120
D1	0.280	0.300	0.320
E	6°	7°	8°
F	9°	10°	11°
G	0.000	-	0.020
R	0.020	-	0.050

Recommend PCB Layout



Notes: This PCB Layout Is For Reference Purposes Only

Marking



Ordering Information

Part number	Material	Type	Reel size	MOQ	MOQ/internal box	MOQ/carton
OVW4148D2	GREEN	T/R	7 inch	8k/reel	10reel= 80k/box	4boxes=320k/carton

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