



DESCRIPTION

The CD4148WSP are available in 0805 SMD package.

MECHANICAL DATA

- Size: 0805
- Weight: approx. 6mg
- Marking: Cathode terminal

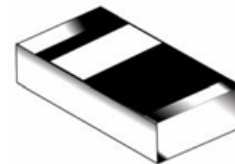
FEATURE

- Silicon epitaxial planar diode
- For small signal switching and operating ambient temperature less than 55°C and voltage withstand less than 60V; not suitable for AC switching input as rectified circuit and high reverse voltage location.

ORDERING INFORMATION

Package Type	Part Number
0805 SMD	CD4148WSP
Note	SPQ: 5,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



ABSOLUTE MAXIMUM RATINGS

T_a = 25°C, unless otherwise specified

V _{RRM} , Repetitive Peak Reverse Voltage	75V	
I _{F(AV)} , Average rectified current sin half wave rectification with resistive load	150mA	
I _{FSM} , Non-Repetitive Surge Forward Current	at t<1s and T _j =25°C	500mA
	at t≤8.3ms and T _j =25°C	1000mA
I _{FRM} , Repetitive Peak Forward Current at T _{amb} =25°C	300mA	
R _{θJA} , Thermal Resistance Junction to Ambient air	375°C/W	
P _{tot} , Forward Power Dissipation	200mW	
P _{tot} , Power derating above 25°C	1.6mW/°C	
R _{θJL} , Typical Thermal Resistance *	30°C/W	
T _{STG} , Operating and Storage Temperature Range	-55°C ~ + 150°C	
T _J , Junction Temperature	150°C	

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

* Valid provided that electrodes are kept at ambient temperature.



ELECTRICAL CHARACTERISTICS

T_A=25°C unless otherwise specified.

Parameter	Symbols	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F = 10mA	-	-	1	V
		I _F = 100mA	-	-	1.250	
Maximum Reverse Current	I _R	V _R =20V	-	-	0.025	uA
		V _R =75V	-	-	5	
Reverse Recovery Time	t _{rr}	I _F = I _R = 10mA, R _L = 100Ω	-	-	4	ns
Capacitance	C _{tot}	V _R = 0V, f = 1MHz			4	pF

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Forward Characteristics

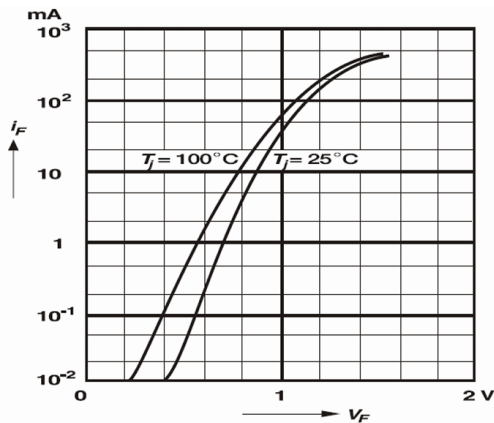


Fig 2. Power De-rating

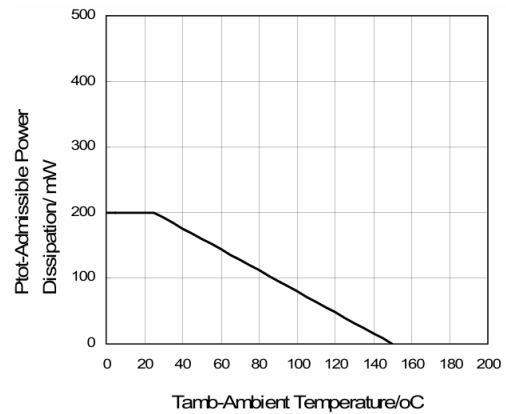


Fig 3. Forward Current De-rating

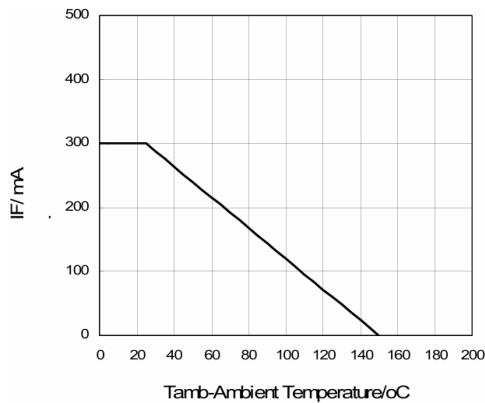
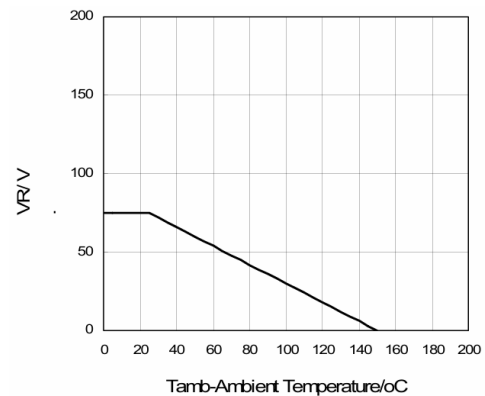


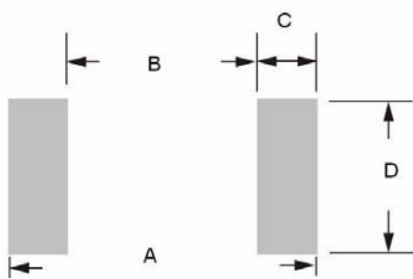
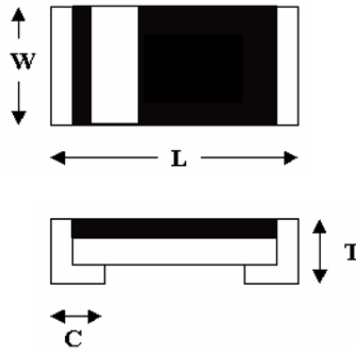
Fig 4. Reverse Voltage De-rating





PACKAGE INFORMATION

Dimension in SMD 0805 Package (Unit: mm)



Recommended Soldering Footprint:

DIM	MILLIMETERS	
	MIN	MAX
A	2.600	3.400
B	1.200	
C	0.700	1.100
D	1.200	1.400

DIM	MILLIMETERS	
	MIN	MAX
C	2.0±0.2	
L	1.25±0.2	
W	0.85±0.1	
T	0.45±0.2	
A	2.800	3.000
B	2.250	2.550
C	1.200	1.400
D	0.950 BSC.	
L	0.300	0.500
θ	0°	8°



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