

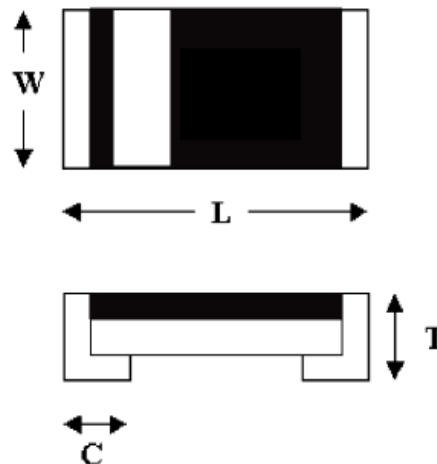
SWITCHING CHIP DIODE

FEATURES

- Silicon epitaxial planar diode
- SMD chip pattern, available in various dimension included 1206 & 0805
- Leadfree and RoHS compliance components

MECHANICAL DATA

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



Dimension/mm	0805
L	2.0±0.2
W	1.25±0.2
T	0.85±0.1
C	0.45±0.2

ELECTRICAL CHARACTERISTICS¹⁾ Tamb=25°C, unless otherwise specified

Parameter	Symbol	Value	Unit
Forward Power Dissipation Power derating above 25°C	P _{tot}	200 1.6	mW mW/°C
Thermal Resistance Junction to Ambient Air	R _{θJA}	375	°C/W
Junction temperature	T _j	150	°C
Operating & Storage Temperature range	T _{stg}	-55 to +150	°C

MAXIMUM RATING¹⁾ Tamb=25°C, unless otherwise specified

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	75	V
Average rectified current sin half wave rectification with resistive load	I _{F(AV)}	150	mA
Repetitive Peak Forward Current at Tamb=25°C	I _{FRM}	300	mA
Non-Repetitive Surge Forward Current @ t<1s and T _j =25°C @ t≤8.3ms and T _j =25°C	I _{FSM}	500 1000	mA mA

ELECTRICAL CHARACTERISTICS¹⁾ Tamb=25°C, unless otherwise specified

Parameter	Symbol	Value	Unit
Forward voltage at I _F =10mA at I _F =100mA	V _F	1.0 MAX. 1.25 MAX.	V
Leakage current V _R =20V V _R =75V	I _R	0.025 MAX. 5 MAX.	uA
Capacitance at V _R =0V, f=1MHz	C _{tot}	4 MAX.	pF
Reverse Recovery Time at I _F =I _R =10mA, R _L =100Ω	t _{rr}	4 MAX.	ns

NOTE: 1. Valid provided that electrodes are kept at ambient temperature

RATING AND CHARACTERISTIC CURVES
CD4148WSP

Figure 1. Forward Characteristic

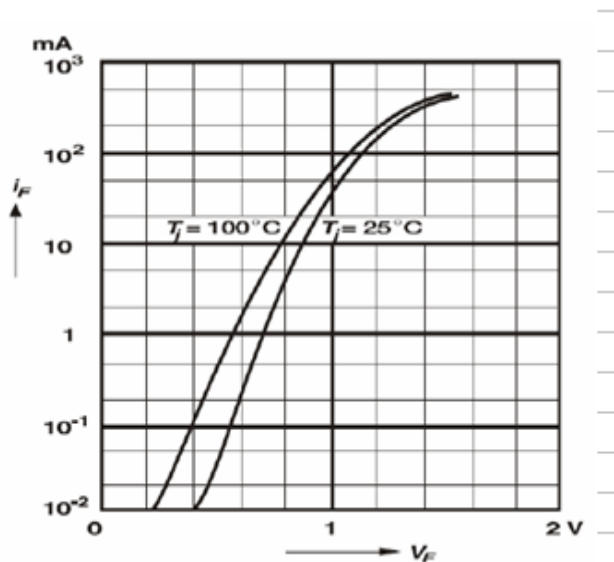


Figure 2. Power De-rating

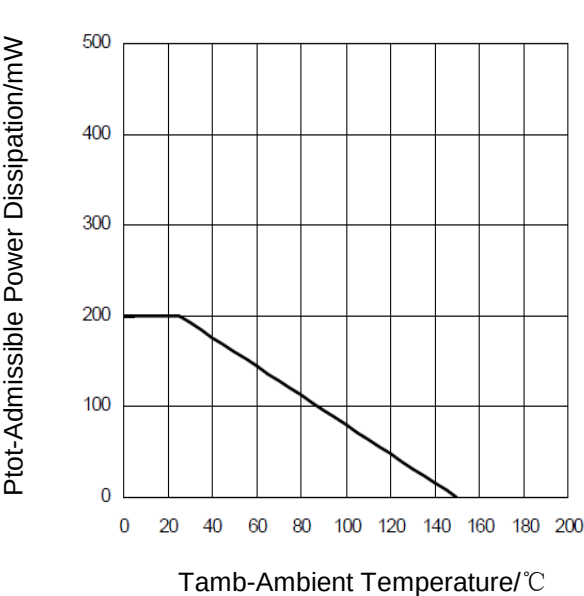


Figure 3. Forward Current De-rating

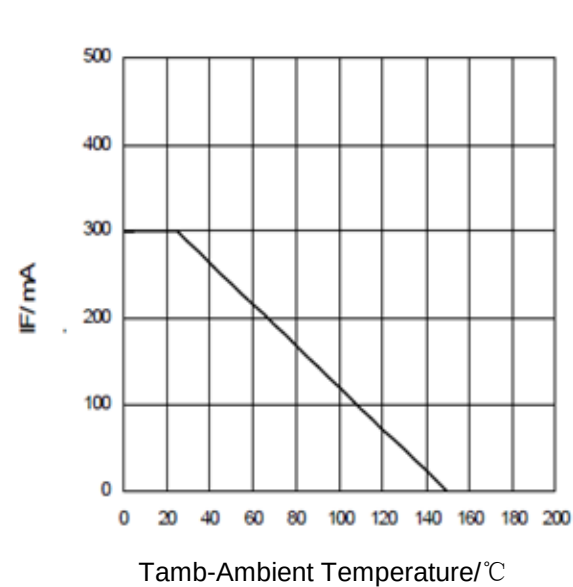


Figure 4. Reverse Voltage De-rating

