

FEATURES

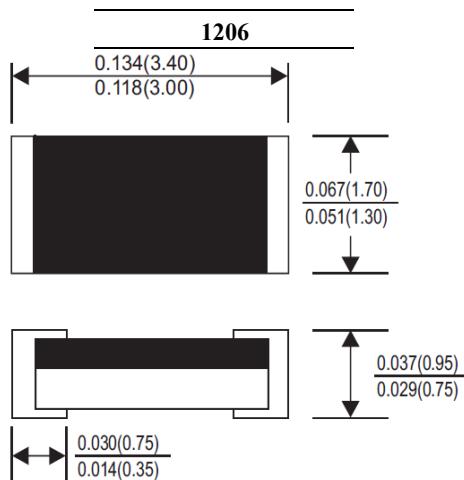
- Silicon epitaxial planar diode
- SMD chip pattern, available in various dimension included 0805
- Leadfree and RoHS compliance components
- For AC switching input as rectified circuit and high reverse voltage location
- Suffix "H" indicates Halogen-free parts, ex. CM4148WNH

Mechanical Data

Case: 1206

Weight: approx. 10mg

Marking: Cathode band



Dimensions in inches and (millimeter)

Thermal Characteristics¹⁾ @ $T_A = 25^\circ C$, unless otherwise specified

Parameter	Symbol	Value	Unit
Forward Power Dissipation	P_{tot}	400	mW
Power derating above 25°C		3.2	mW/ °C
Junction Temperature	T_j	150	°C
Thermal Resistance Junction to Ambient air	$R_{\theta JA}$	375	°C/W
Operating& Storage Temperature range	T_{stg}	-55 to 150	°C

¹⁾ Valid provided that electrodes are kept at ambient temperature.

Electrical Rating¹⁾ @ $T_A = 25^\circ C$, unless otherwise specified

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	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 at t<1s and Tj=25°C at t≤8.3ms and Tj=25°C	I_{FSM}	500	mA
		1000	mA

¹⁾ Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics¹⁾ @ $T_A = 25^\circ C$, unless otherwise specified

Parameter	Symbol	MAX.	Unit
Forward Voltage at $I_F = 10\text{mA}$ at $I_F = 100\text{mA}$	V_F	1.0	V
		1.25	V
Leakage Current at $V_R = 20\text{V}$ Leakage Current at $V_R = 80\text{V}$	I_R	0.025	μA
		0.5	μA
Capacitance at $V_R = 0\text{V}$, f=1MHz	C_{tot}	4	pF
Reverse Recovery Time at $I_F = I_R = 10\text{mA}$, $R_L = 100\Omega$	t_{rr}	4	nS

¹⁾ Valid provided that electrodes are kept at ambient temperature.

CM4148WN

Switching Diode



康比電子
HORNBY ELECTRONIC

Typical Characteristics@ $T_A = 25^\circ C$, unless otherwise specified

Figure 1. Forward Characteristic

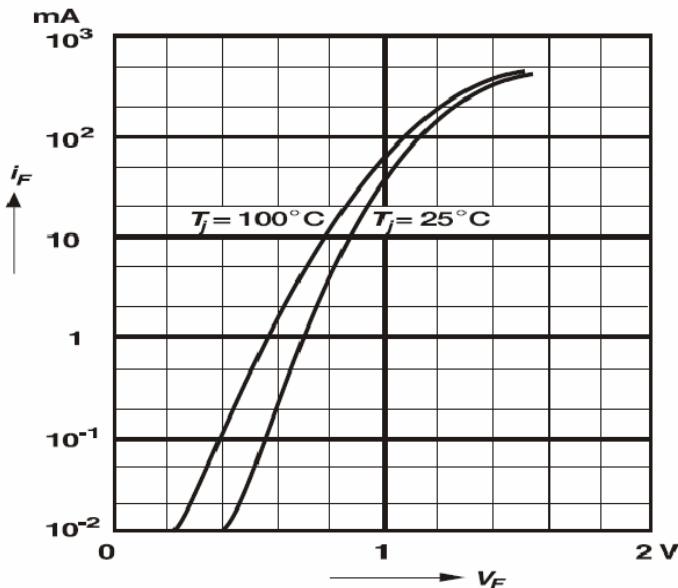


Figure 2. Power De-rating

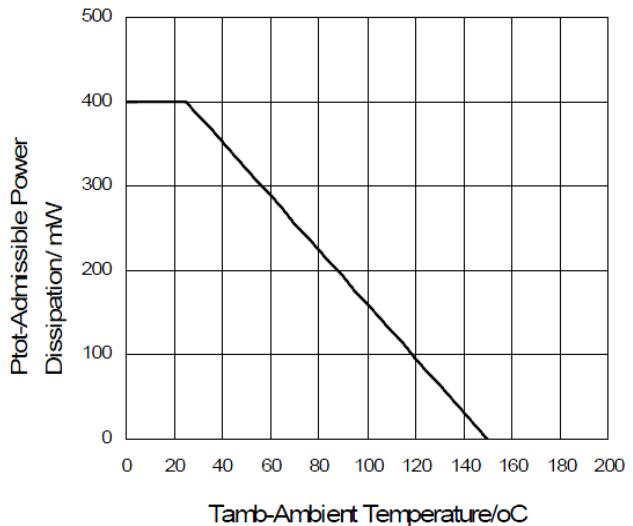


Figure 3. Forward Current De-rating

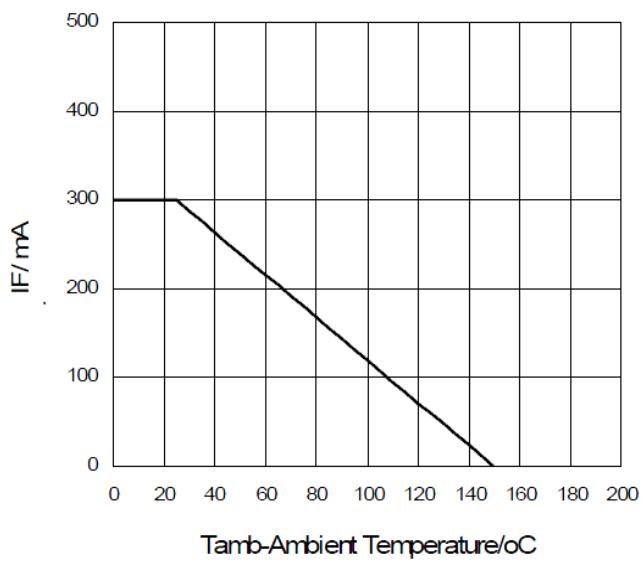


Figure 4. Reverse Voltage De-rating

