

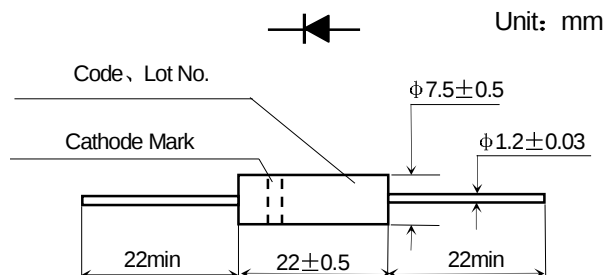
■ Features

- $I_{F(AV)}$ 350mA
- V_{RRM} 9kV ,12kV
- High reliability

■ Applications

- Rectification for high voltage power supply of magnetron in Micro wave oven and others

■ Outline Dimensions and Mark



Type	Code	Cathode Mark
2CL3509H	T3509H	
2CL3512H	T3512H	

■ Limiting Values (Absolute Maximum Rating)

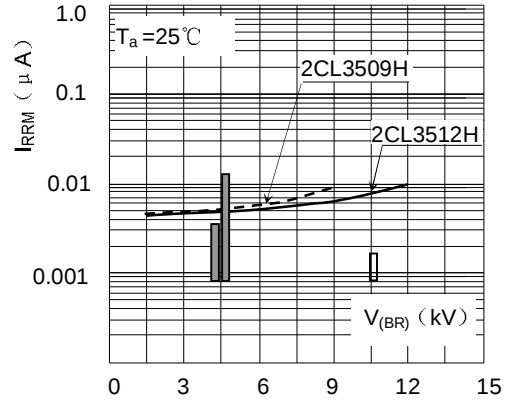
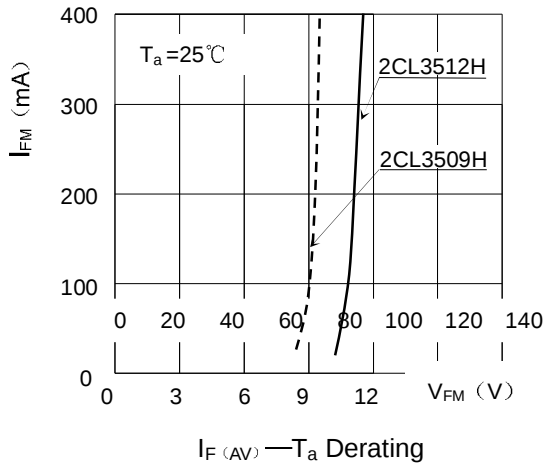
Item	Symbol	Unit	2CL3509H	2CL3512H
Repetitive Peak Reverse Voltage	V_{RRM}	kV	9	12
Average Forward Current	$I_{F(AV)}$	mA	350	(50Hz Half-sine wave, Resistance load, $T_a \leq 60^\circ\text{C}$)
Forward Surge Current	I_{FSM}	A	30	(50Hz Half-sine wave, 1cycle, $T_a = 25^\circ\text{C}$)
Reverse Surge Current	I_{RSM}	mA	100	($W_P = 1\text{ms}$, Rectangular-wave, One-shot, $T_a = 25^\circ\text{C}$)
Virtual Junction Temperature	$T_{(vj)}$	$^\circ\text{C}$	130	
Storage Temperature	T_{stg}	$^\circ\text{C}$	-40 ~ +130	

* Cooling Requirement: Cathode terminal is fastened to radiating fin that size is more than 50mm×50mm×0.6mm Wind-cooled velocity is more than 0.5m/s

■ Electrical Characteristics ($T_a = 25^\circ\text{C}$ Unless otherwise specified)

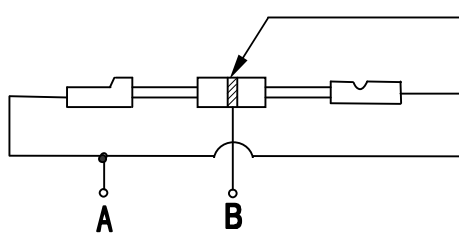
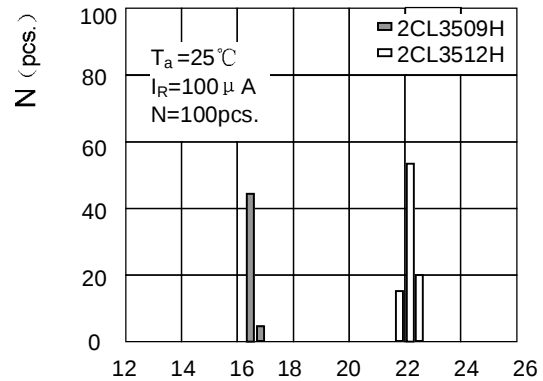
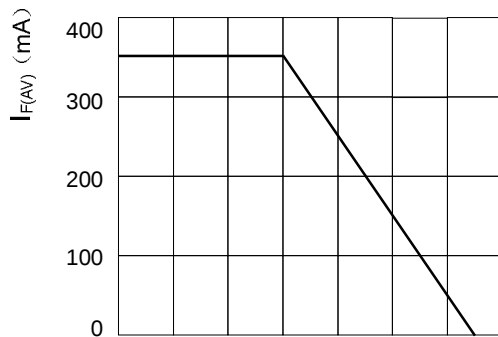
Item	Symbol	Unit	Test Condition	2CL3509H	2CL3512H
Peak Forward Voltage	V_{FM}	V	$I_{FM} = 350\text{mA}$	≤ 10	≤ 12
Peak Reverse Current	I_{RRM1}	μA	$V_{RM} = V_{RRM}$	≤ 5	
Avalanche Breakdown Voltage	$V_{(BR)}$	kV	$I_R = 100\mu\text{A}$	≥ 9.5	≥ 12.5

■ **Characteristics(Typical)**



Breakdown Voltage Distribution
Reverse Characteristics

● **Safety Test**



3mm Wide metal film is rolled on the surface
middle of diode body

1. Insulation Resistance Test: 500V DC voltage is added between A and B. The measurement by insulation resistance meter is big than 1000MΩ.

2. Resistance To Voltage Strength Test: 15kV half-sine wave voltage is added between A and B for one minute and no breakdown or arc in insulation oil.