2CL3509、2CL3512

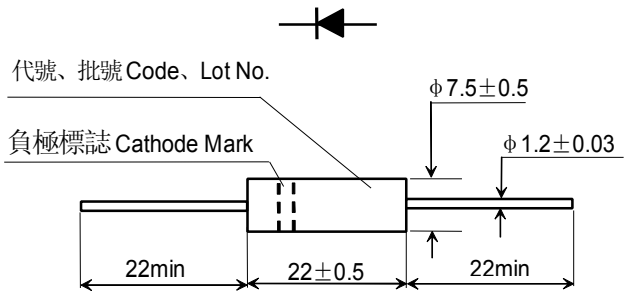
微波爐用高壓二極管 High Voltage Diodes for Micro-wave Oven

■特徵 Features

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

■外形尺寸和印記 Outline Dimensions and Mark

單位 Unit：mm



■用途 Applications

- 微波爐及其他電子設備高壓電源整流用
  Rectification for high voltage power supply of magnetron in Micro wave oven and others

.

型號 Type	代號 Code	負極標誌 Cathode Mark
2CL3509	T3509	
2CL3512	T3512	

■極限值（絕對最大額定值）

Limiting Values（Absolute Maximum Rating）

參數名稱 Item	符號 Symbol	單位 Unit	2CL3509	2CL3512
反向重復峰值電壓 Repetitive Peak Reverse Voltage	V_{RRM}	kV	9	12
正向平均電流 Average Forward Current	$I_{F(AV)}$	mA	350	（正弦半波 50Hz，電阻負載，T_a≤60℃＊） (50Hz Half-sine wave, Resistance load, T_a≤60℃)
正向浪湧電流 Forward Surge Current	I_{FSM}	A	30	（正弦半波 50Hz，一個周期，T_a=25℃） （50Hz Half-sine wave,1cycle,T_a=25℃）
反向浪湧電流 Reverse Surge Current	I_{RSM}	mA	100	(方波、W_P=1ms, 單脈衝，T_a=25℃) (W_P=1ms, Rectangular-wave, One-shot, T_a=25℃)
有效結溫 Virtual Junction Temperature	$T_{(vj)}$	℃	130	
貯存溫度 Storage Temperature	T_{stg}	℃	-40 ~ +130	

＊ 散熱方式：將負極端子固定在厚度為0.6mm,面積為50mm×50mm 以上的散熱片上，風冷條件：0.5m/s

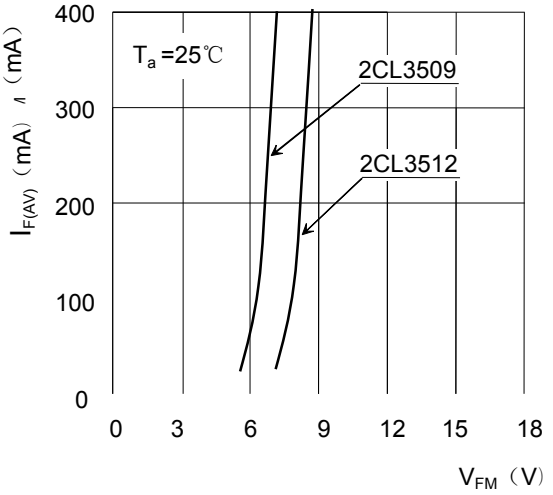
Cooling Requirement: Cathode terminal is fastened to radiating fin that size is more than 50mm×50mm×0.6mm Wind-cooled velocity is more than 0.5m/s

■電特性 （T_a=25℃ 除非另有規定）

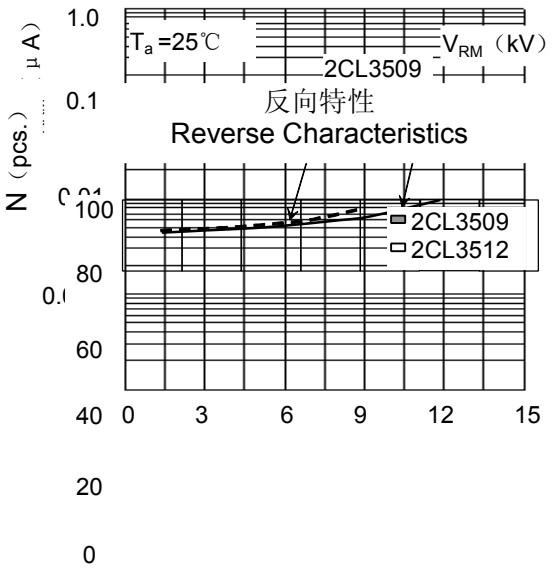
Electrical Characteristics（T_a=25℃ Unless otherwise specified）

參數名稱 Item	符號 Symbol	單位 Unit	測試條件 Test Condition	2CL3509	2CL3512
正向峰值電壓 Peak Forward Voltage	V_{FM}	V	I_{FM}=350mA	≤9	≤10
反向峰值電流 Peak Reverse Current	I_{RRM1}	μA	V_{RM}=V_{RRM}	≤5	
雪崩擊穿電壓 Avalanche Breakdown Voltage	$V_{(BR)}$	kV	I_R=100μA	≥9.5	≥12.5

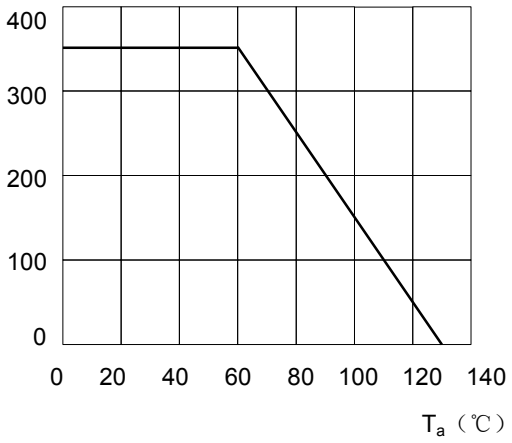
■特性曲綫（典型） Characteristics(Typical)



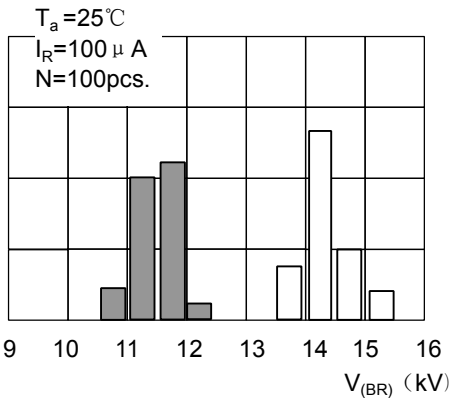
正向特性
Forward Characteristics



反向特性
Reverse Characteristics

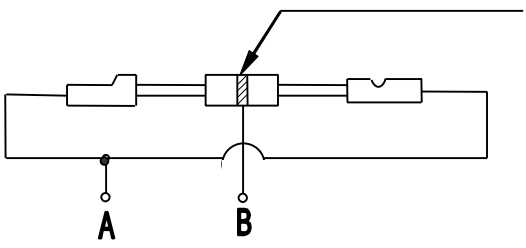


正向平均電流降額曲綫
$I_{F(AV)}$—T_a Derating



擊穿電壓分佈
Breakdown Voltage Distribution

• 安全試驗 Safety Test



寬 3mm 金屬箔卷在管體中央
3mm Wide metal film is rolled on the surface middle of diode body

1.絕緣電阻試驗：AB 之間施加 500V 直流電壓，用絕緣電阻表測，絕緣電阻大於 1000MΩ。
2.耐壓強度試驗：在絕緣油中進行，AB 之間施加峰值為 15kV 的正弦半波電壓、1 分鐘，無擊穿或飛弧。

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.