SiPower

Power Semiconductor Technology

2CLG3508 2CLG3508(T)

High Voltage Diodes for Micro-wave Oven

■ Features

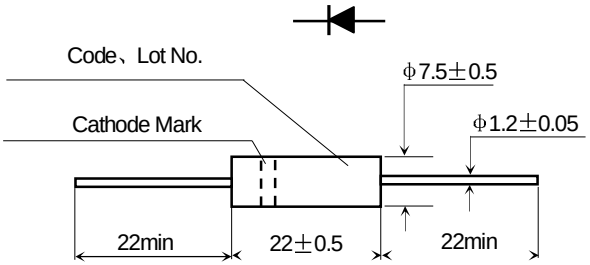
- $I_{F(AV)}$ 350mA
- V_{RRM} 8kV
- High reliability

■ Applications

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

■ Outline Dimensions and Mark

Unit：mm



Type	Code	Cathode Mark
2CLG3508	TG3508	
2CLG3508(T)	TG3508	

■Limiting Values（Absolute Maximum Rating）

Item	Symbol	Unit	2CLG3508	2CLG3508(T)
Repetitive Peak Reverse Voltage	V_{RRM}	kV	7.5	8
Average Forward Current	$I_{F(AV)}$	mA	350 (50HzHalf-sine wave, Resistance load, T_a≤60℃)	
Forward Surge Current	I_{FSM}	A	15 （50HzHalf-sine wave, One-shot, T_a=25℃）	
Reverse Surge Current	I_{RSM}	mA	50 (W_P=1ms, Rectangular-wave, One-shot, T_a=25℃)	
virtual Junction Temperature	$T_{(vj)}$	℃	120	
Storage Temperature	T_{stg}	℃	-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℃ Unless otherwise specified）

Item	Symbol	Unit	Test Condition	2CLG3508	2CLG3508(T)
Peak Forward Voltage	V_{FM}	V	I_{FM}=350mA	≤13.5	≤14.0
Peak Reverse Current	I_{RRM1}	μA	V_{RM}=V_{RRM}	≤10	
Rererse Recovery Time	trr	μs	I_F=100mA，I_R=100mA 90% Recover	≤0.15	
Avalanche Breakdown Voltage	$V_{(BR)}$	kV	I_R=100μA	≥7.6	≥8.5

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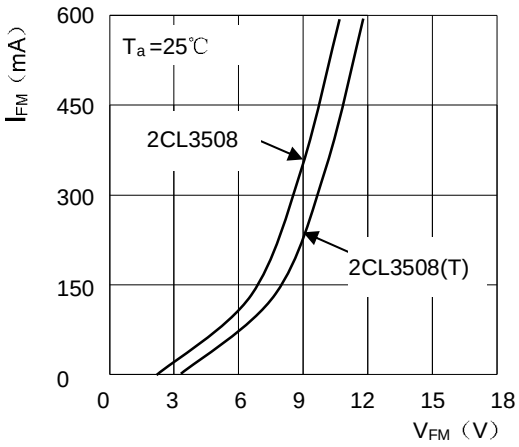
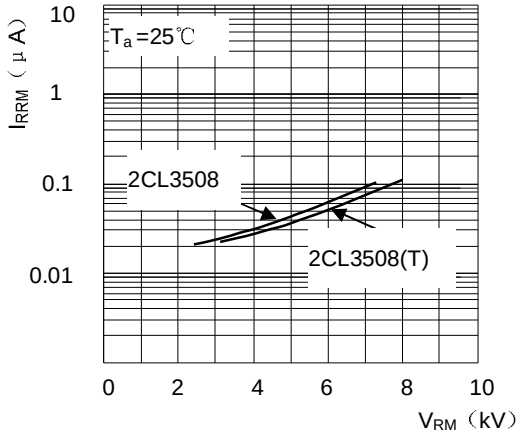
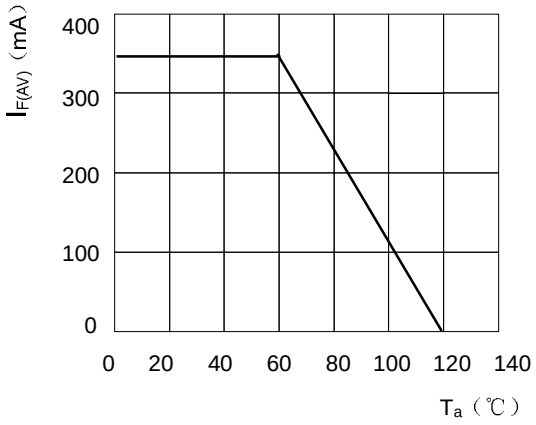
■ Characteristics(Typical)



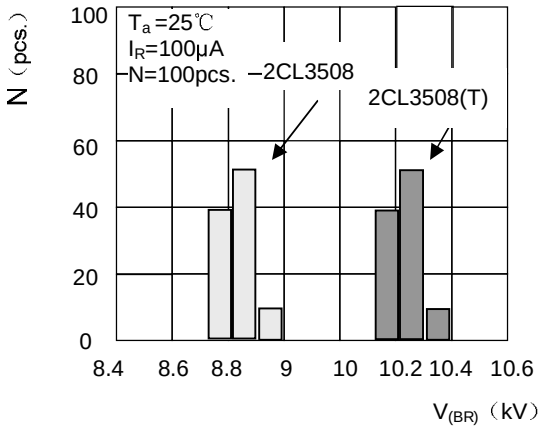
Forward Characteristics



Reverse Characteristics

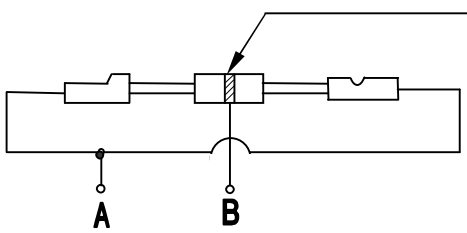


$I_{F(AV)}$—T_a Derating



Breakdown Voltage Distribution

- **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.