

High Voltage Silicon Diodes for Micro-wave oven

Reverse Voltage – 12KV

Forward Current –500mA

FEATURES

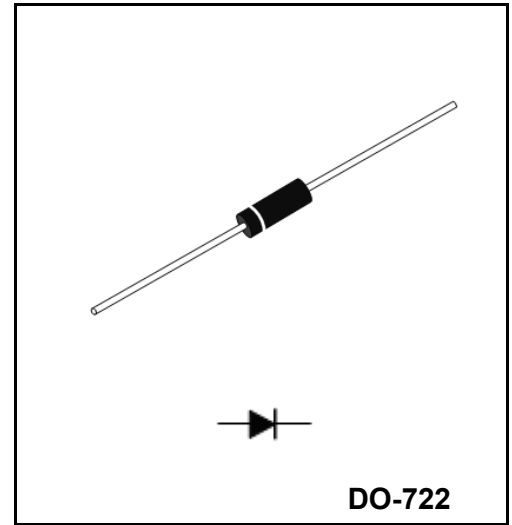
◆ High reliability

Applications

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

MECHANICAL DATA

- ◆ Case: Molded Plastic Body
- ◆ Epoxy meets UL 94V-0 flammability rating
- ◆ Terminals: Pure tin plated leads, solderable per J-STD-002and JESD22-B102, E3 suffix for consumer grade, meet JESD201class 1A whisker test.
- ◆ Polarity: Color band denotes cathode end



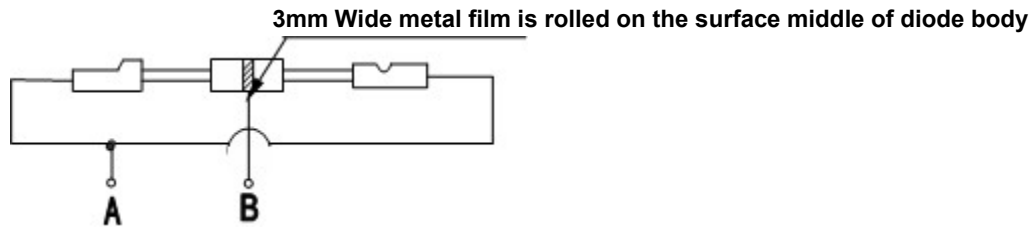
Marking Code	
CL04-12	YFW CL04-12

Maximum rating (Ta=25°C unless otherwise noted)

Parameter		Symbol	CL04-12	Unit
Repetitive peak reverse voltage		V_{RRM}	12	kV
Average forward current	60Hz half-sine wave, Resistance load, Ta≤60°C	$I_{F(AV)}$	500	mA
Forward surge current	60Hz half-sine wave, 1cycle, Ta=25°C	I_{FSM}	60	A
Reverse surge current	Wp=1ms, Rectangular-wave, One-shot, Ta=25°C	I_{RSM}	100	mA
Peak forward voltage	$I_{FM}=450mA$	V_{FM}	≤12	V
Peak reverse current	$V_{RM}=V_{RRM}$	I_{RRM1}	≤5	μA
Avalanche breakdown voltage	$I_R=100μA$	$V_{(BR)}$	≥16.5	kV
Virtual junction temperature		$T_{(vj)}$	130	°C
Storage temperature		T_{stg}	-40 ~ +130	°C

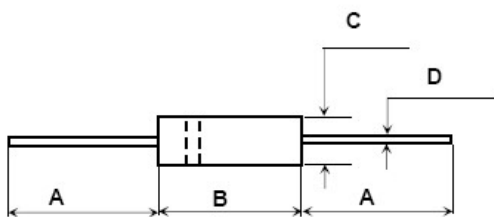
Notes: Cooling Requirement: Cathode terminal is fastened to radiating fin that size is more than 50mm×50mm×0.6mm Wind-cooled velocity is more than 0.5m/s

Safety Test



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.

Package outline dimensions



Dim.	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	0.866		22	
B	0.845	0.886	21.5	22.5
C	0.276	0.315	7.0	8.0
D	0.046	0.048	1.17	1.23

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
DO-722	Bulk	500pcs/BOX	EIA-481-1