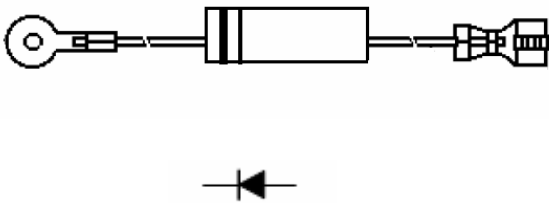



High voltage silicon diodes		Features		
		<ul style="list-style-type: none"> • $I_{F(AV)}$ 350mA • V_{RRM} 20kV • High reliability 		
		Applications		
		Rectification for high voltage power supply of magnetron in Micro wave oven and others		
Primary characteristics		Mechanical data		
$I_{F(AV)}$	350mA	<ul style="list-style-type: none"> • Case: Molded Plastic Body • Epoxy meets UL 94V-0 flammability rating • Terminals: Pure tin plated leads, solderable per J-STD-002 and JESD22-B102, E3 suffix for consumer grade, meet JESD201 class 1A whisker test. <p>Polarity: Color band denotes cathode end</p>		
V_{RRM}	20kV			
I_{FSM}	30A			
I_{RM}	5uA			
V_{FM}	12V			
$T_J \text{ max.}$	130 °C			
Maximum rating ($T_a=25^\circ\text{C}$ unless otherwise noted)				
Parameter		Sym bol	2CL3512H	Unit
Maximum recurrent peak reverse voltage		V_{RRM}	20	KV
Maximum RMS voltage		V_{RMS}	14	KV
Average forward current	60Hz half-sine wave, Resistance load, $T_a \leq 60^\circ\text{C}$	$I_{F(AV)}$	350	mA
Forward surge current	60Hz half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	I_{FSM}	30	A
Reverse surge current	$W_p=1\text{ms}$, Rectangular-wave, One-shot, $T_a=25^\circ\text{C}$	I_{RSM}	100	mA
Peak forward voltage	$I_{FM}=350\text{mA}$	V_{FM}	≤ 12	V
Peak reverse current	$V_{RM}=V_{RRM}$	I_{RRM1}	≤ 5	μA
Virtual junction temperature		$T_{(vj)}$	130	$^\circ\text{C}$
Storage temperature		T_{stg}	-40 ~ +130	$^\circ\text{C}$

Notes: Cooling Requirement: Cathode terminal is fastened to radiating fin that size is more than 50mmx50mmx0.6mm
Wind-cooled velocity is more than 0.5m/s

Typical characteristics

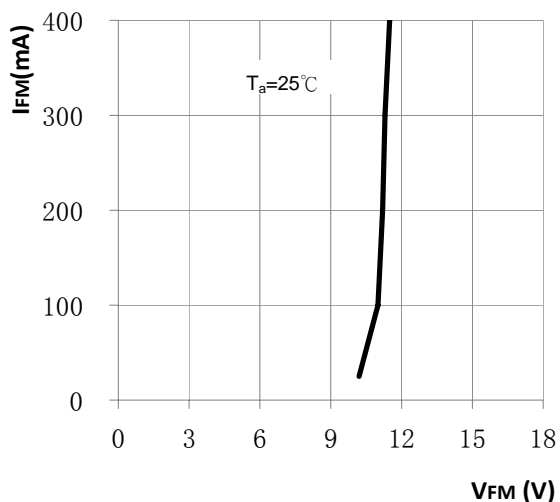


Figure 1. Forward Characteristics

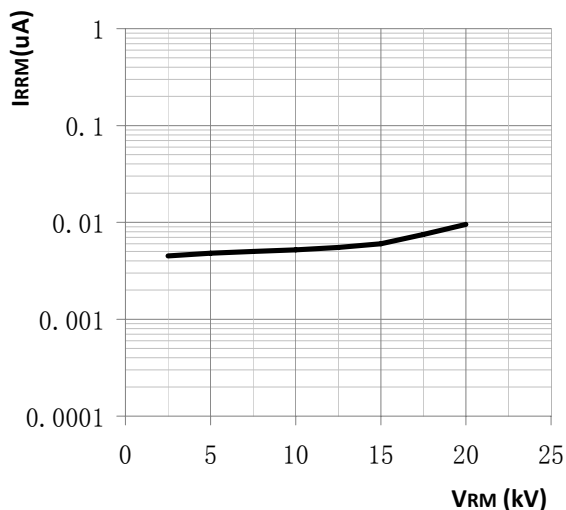


Figure 2. P-Io Curve

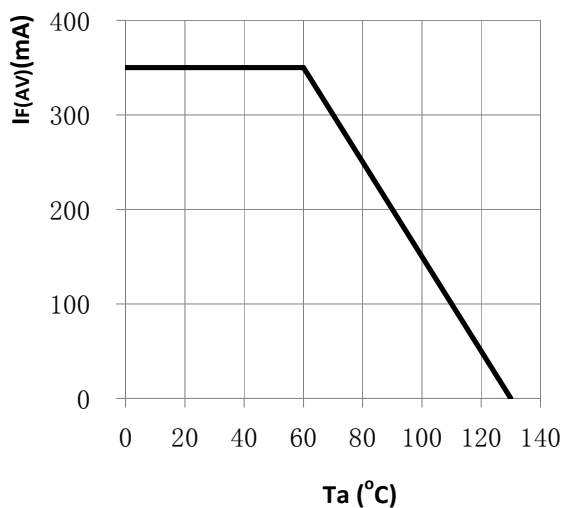
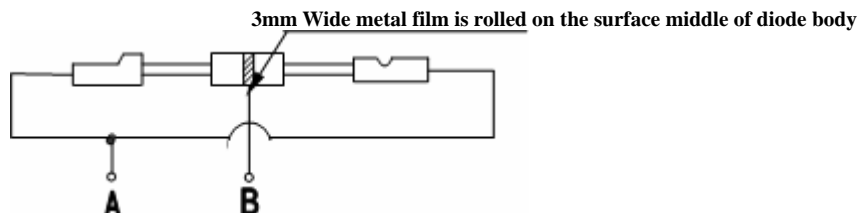


Figure 3. $I_{F(AV)}$ - T_a Derating

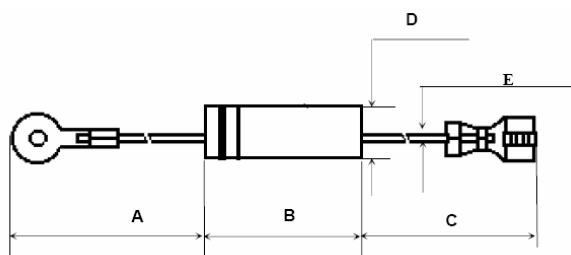
Safety Test

Safety Test



1. Insulation Resistance Test: 500V DC voltage is added between A and B. The measurement by insulation resistance meter is big than 1000M Ω .
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	1.063	1.299	27	33
B	0.846	0.886	21.5	22.5
C	1.181	1.378	30	35
D	0.276	0.315	7.0	8.0
E	0.046	0.048	1.17	1.23