

# DATA SHEET

## CEMENT RESISTORS

Low Ohmic, Metal Plate  
Vertical Mount

SLR Series

±5%, ±10%

2W to 10W

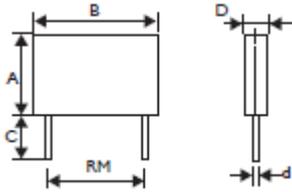
RoHS compliant & Halogen Free





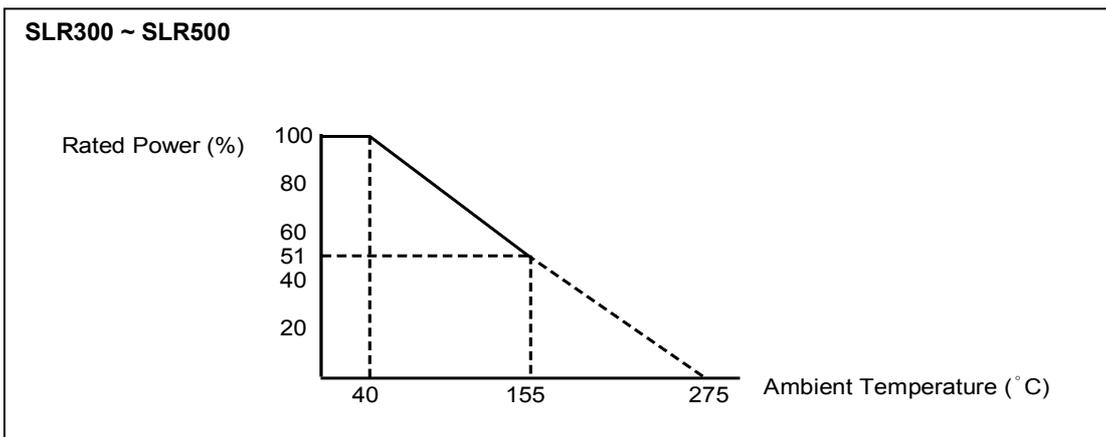
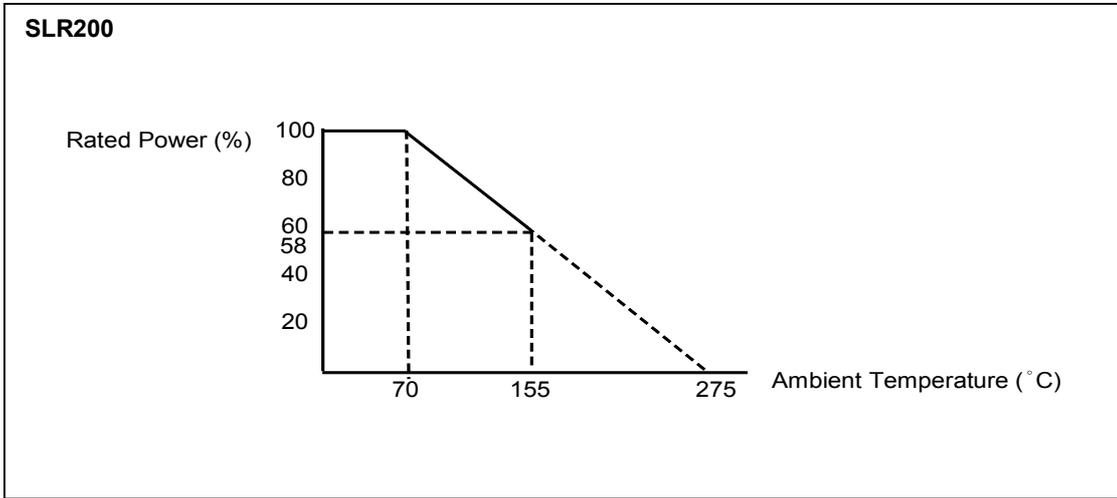
**DIMENSIONS**

Unit: mm

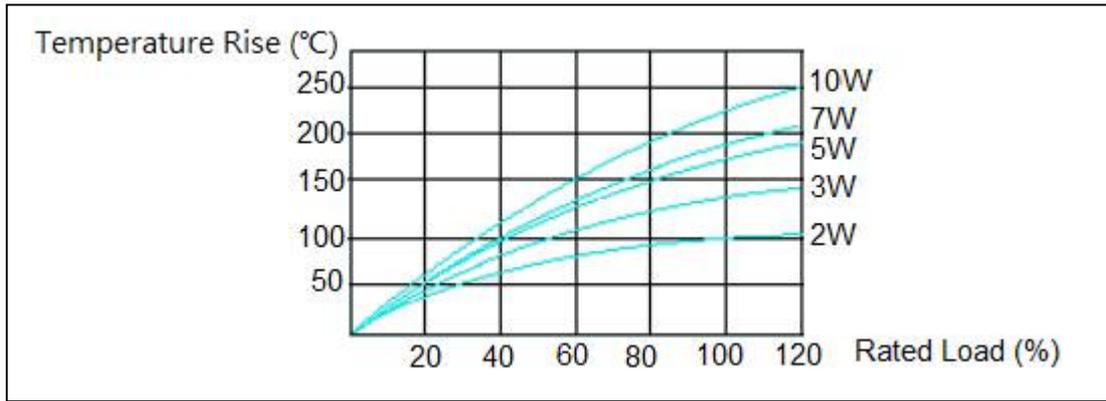


	Normal	A	B	C	D	$\psi d$	RM
SLR200	8±1	13±1	3.5±1	5±1	0.60±0.05	9±1	
SLR300	13±1	13±1	3.5±1	5±1	0.60±0.05	9±1	
SLR500	18±1	14±1	3.5±1	5±1	0.80±0.05	10±1	
SLR700	18±1	26±1	3.5±1	5±1	0.80±0.05	20±1	
SLR10A	20±1	26±1	3.5±1	5±1	0.80±0.05	20±1	

**DERATING CURVE**



**TEMPERATURE CURVE**



**ELECTRICAL CHARACTERISTICS**

CHARACTERISTICS	SLR200	SLR300	SLR500	SLR700	SLR10A
Power Rating at 70 °C	2W				
Power Rating at 40 °C		3W	5W	7W	10W
Voltage Proof on Insulation	500V	700V	700V	1000V	1000V
Resistance Range	0.1Ω ~ 0.68Ω	0.01Ω ~ 1Ω	0.01Ω ~ 3.3Ω	0.01Ω ~ 3.3Ω	0.01Ω ~ 3.3Ω
Maximum Working Voltage	$\sqrt{P \times R}$				
Operating Temp. Range	- 55°C to +155°C				
Temperature Coefficient	±250ppm/°C				

Note: For resistance value out of above range is by request.

**TABLE I MATERIALS OF LEAD WIRE**

TYPE	Resistance Value	
SLR Series	≤0.05Ω	>0.05Ω
	Copper Wire	CP Wire

**TEST AND REQUIREMENTS**

TEST	TEST METHOD	PROCEDURE	APPRAISE
Short Time Overload	IEC 60115-1 4.13	2.5 times RCWV for 5 sec.(Not more than maximum overload voltage)	±2.0%+0.05Ω
Voltage Proof on Insulation	IEC 60115-1 4.7	In V-Block for 60 sec. test voltage as above table	No Breakdown
Temperature Coefficient	IEC 60115-1 4.8	Between -55°C to +155°C	By Type
Insulation Resistance	IEC 60115-1 4.6	In V-Block for 60 sec.	>1,000MΩ
Solderability	IEC 60115-1 4.17	245±5°C for 3±0.5 Sec.	95% Min. coverage
Solvent Resistance of Marking	IEC 60115-1 4.30	IPA for 5±0.5 Min. with ultrasonic	No deterioration of coatings and markings
Robustness of Terminations	IEC 60115-1 4.16	Direct load for 10 Sec. in the direction of the terminal leads	≥2.5Kg(24.5N)D
Periodic-pulse Overload	IEC 60115-1 4.39	4 times RCWV 10,000 cycles (1 Sec. on, 25 Sec.off)	±2.0%+0.05Ω
Damp Heat Steady State	IEC 60115-1 4.24	40±2°C,90-95% RH for 56 days, loaded with 0.1 times RCWV	±5.0%+0.05Ω
Endurance at 70°C	IEC 60115-1 4.25	70±2°C at RCWV(or Umax., whichever less) for 1,000 Hr.(1.5 Hr.on,0.5 Hr. off)	±5.0%+0.05Ω
Temperature Cycling	IEC 60115-1 4.19	→ -55°C → Room Temp. → +155°C Room Temp.(5 cycles)	±2.0%+0.05Ω
Resistance to Soldering Heat	IEC 60115-1 4.18	260±3°C for 10±1 Sec., immersed to a point 3±0.5mm from the body	±1.0%+0.05Ω

Note:

**RCWV (Rated Continuous Working Voltage ):**

The DC or AC (rms) continuous working voltage corresponding to the rated power is determined by the following formula:

$$V=\sqrt{(P \times R)}$$

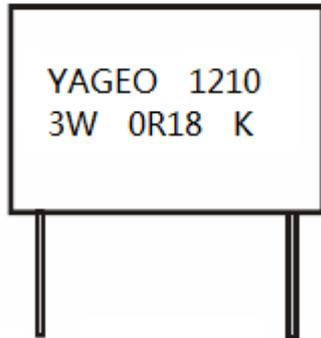
or max. working voltage whichever is less

Where

V=Continuous rated DC or  
AC (rms) working voltage (V)

P=Rated power (W)

R=Resistance value (Ω)

**MARKING****Example:**

---

YAGEO	= Brand
1210	= Date code
3W	= Power rating
0R18	= Resistance
K	= Tolerance

---

**REVISION HISTORY**

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 0	Aug.2, 2021	-	- First issue of this specification

*“ Yageo reserves all the rights for revising the content of this datasheet without further notification, as long as the products itse lf are unchanged. Any product change will be announced by PCN.”*

## **LEGAL DISCLAIMER**

Yageo, its distributors and agents (collectively, "Yageo"), hereby disclaims any and all liabilities for any errors, inaccuracies or incompleteness contained in any product related information, including but not limited to product specifications, datasheets, pictures and/or graphics. Yageo may make changes, modifications and/or improvements to product related information at any time and without notice.

Yageo makes no representation, warranty, and/or guarantee about the fitness of its products for any particular purpose or the continuing production of any of its products. To the maximum extent permitted by law, Yageo disclaims (i) any and all liability arising out of the application or use of any Yageo product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for a particular purpose, non-infringement and merchantability.

Yageo statements regarding the suitability of products for certain types of applications are based on Yageo's knowledge of typical operating conditions for such types of applications in a generic nature. Such statements are neither binding statements of Yageo nor intended to constitute any warranty concerning the suitability for a specific customer application or use. They are intended for use only by customers with requisite knowledge and experience for determining whether Yageo products are the correct products for their application or use. In addition, unpredictable and isolated cases of product failure may still occur, therefore, customer application or use of Yageo products which requires higher degree of reliability or safety, shall employ additional protective safeguard measures to ensure that product failure would not result in personal injury or property damage.

Yageo products are not designed for application or use in medical, life-saving, or life-sustaining devices or for any other application or use in which the failure of Yageo products could result in personal injury or death. Customers using or selling Yageo products not expressly indicated for above-mentioned purposes shall do so at their own risk and agree to fully indemnify Yageo and hold Yageo harmless.

Information provided here is intended to indicate product specifications only. Yageo reserves all the rights for revising this content without further notification, as long as products are unchanged. Any product change will be announced by PCN.