香港電阻

香 港 電 阻 製 造 廠

香港柴湾安业街十二号长益工业大厦 **10** 字楼 **A** 座

HONG KONG RESISTORS MANUFACTORY

(wholly owned by Hong Kong Resistors Manufactory International Ltd.)

AN ISO 9001:2015 CERTIFIED MANUFACTURER

AN ISO 45001: 2018 MANUFACTURER

AN ISO 14001: 2015 MANUFACTURER

10A Cheong Yick Industrial Building, 12 On Yip St., Chai Wan, Hong Kong

Tel.: (852)28962782Fax.: (852) 28965291

国内工厂一 : 东莞溢辉电子有限公司

地址 : 东莞市虎门镇怀德社区蔗寮工业区 4 号

Tel.: (86 769)83315373Fax.: (86 769) 83311603

国内工厂二:恒辉电阻(益阳)有限公司

地址 : 湖南省益阳市资阳区长春工业园五福路

Tel.: (86 737)3800399Fax.: (86 737) 3800199

国内工厂三：南充溢辉电子科技有限公司

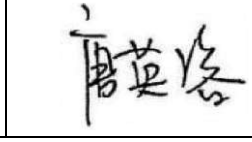
地址：四川省南充市高坪区航空港工业园区

Tel.: (86 817) 3315 388 Fax.:(86 817)3315 388

DATASHEET

Name of Product: Wire Wound Chip Power Resistor –CWR Series

Sales Executive:_____ Date:_____

制造 Prepared by	品质 Quality by	业务 Sales by	核准 Authorized by
			
客户 customer approval	客户 customer approval	客户 customer approval	客户 customer approval

Wire Wound Chip Power Resistor



■Features

- Resistance range:0.1 to 1.2KΩ
- High loading power, can bear high power load
- Nonflammable epoxy resin hot-pressing encapsulated, firm in structure
- Low noise, perfect stability and high reliability
- Good moisture-proof and environmental suitability
- Suitable for surface mounted (SMT) operating for automation
- Many kinds of size series for selection
- Non-inductive wire wound resistors is available that customized by customers

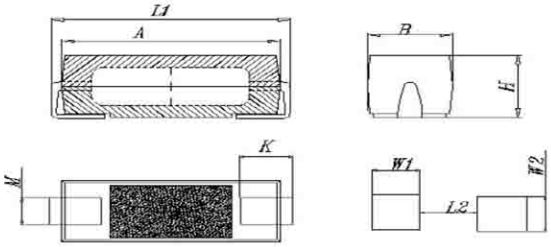
■Applications

- Power supply models of communication
- High power supply
- Protection circuits of signal
- Power supply of STB or other terminal devices

■Part Numbering

CWR	27	1K	J	E	3W
Type	Size	Value	Toleran	TCR	Power
	15 : 2615		D : ±0.5%	E:±100PPM	1/2W
	16 : 3816		F : ±1%	K: ±150PPM	1W
	45 : 4525		G : ±2%	F: ±200PPM	2W
	27 : 6327		J : ±5%	G:±300PPM	3W
					5W

■Dimensions

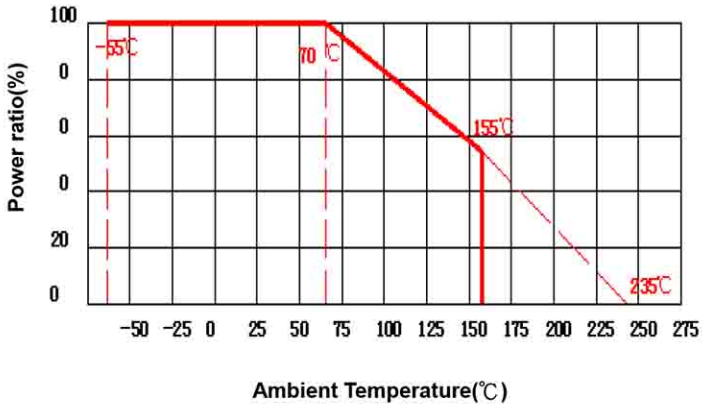


Unit: mm

Type	Size (Inch)	L1	A	B max.	H	K min.	M	W1	W2	L2	Packaging 330mm/13"
15	2615	6.6±0.5	5.6±0.5	4.0	3.2±0.25	1.2	1.0±0.4	2.0	2.0	4.0	2000pcs
16	3816	9.6±0.5	8.6±0.5	4.2	3.5±0.25	1.8	1.2±0.4	3.0	2.2	5.2	2000pcs
45	4525	11.4±0.5	10.2±0.5	6.5	4.6±0.25	2.2	2.0±0.4	3.2	2.5	7.0	1000pcs
27	6327	15.9±0.5	14.7±0.5	7.0	6.4±0.25	3.0	2.0±0.4	4.5	3.0	8.8	800pcs

■Derating Curve

Power rating is defined as maximum power rating continuously applied under ambient temperature at 70℃.
when the ambient temperature exceeds 70℃ ◦ The power consumption of the product below.



■Rated Voltage

Rated voltage is defined as the DC or AC (effective Value at commercial frequency example 50 C/S,60 C/S)，
Voltage when rated power is applied and can be calculated By the following：

$$V=\sqrt{PxR}$$

V = RATED VOLTAGE
P = RATED POWER (WATTS)
R = NOMINAL RESISTANCE VALUE (OHM)

When the calculated rated voltage exceeds the Maximum usable voltage flue shown in CHART,
the Maximum usable voltage is defined as the voltage According to the power-decreasing curve shown in CHART.

■Standard Electrical Specifications

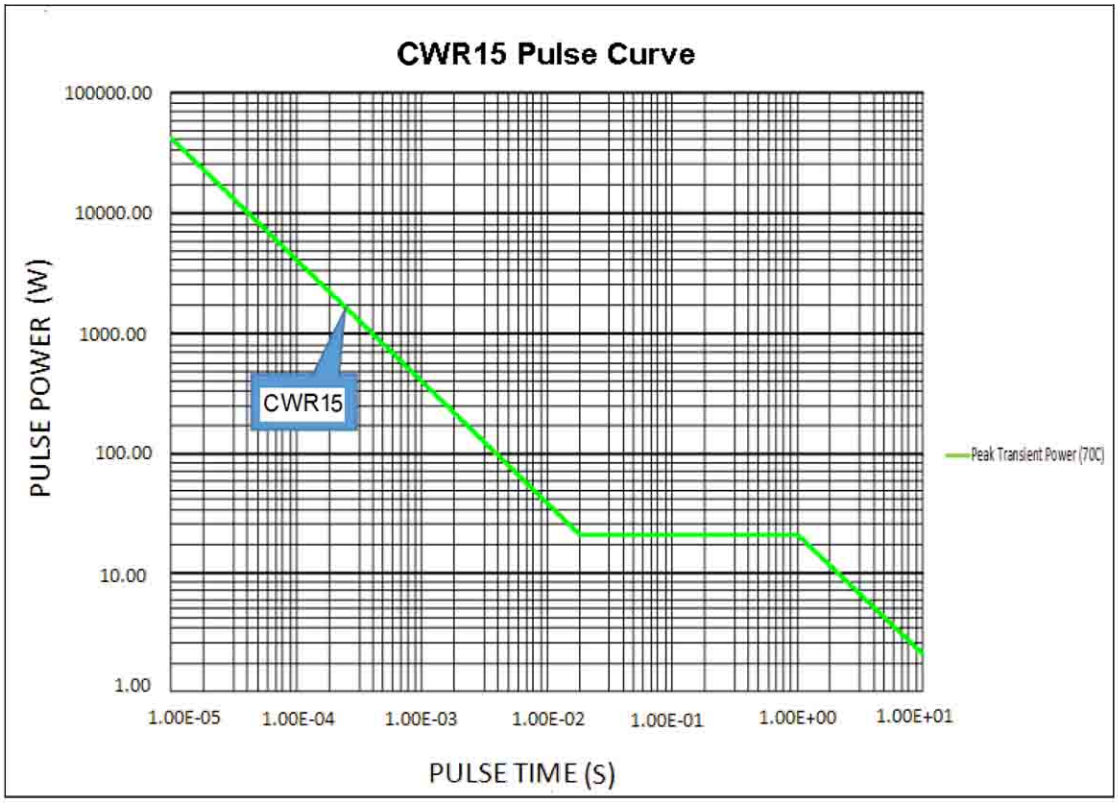
Item / Type	Power Rating	Operating Temp. Range	Max. Operating Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Resistance Range				TCR (PPM/°C)
						±0.5%	±1%	±2%	±5%	
15 (2615)	1/2W 1W	-55 ~ +155°C	200V	350V	500V	-			0.22Ω – 0.49Ω	±300
						-			0.5Ω – 0.99Ω	±200
						-	1Ω – 9.9Ω			±150
						10Ω – 50Ω				±100
16 (3816)	1W 2W	-55 ~ +155°C	250V	500V	500V	-			0.1Ω – 0.49Ω	±300
						-			0.5Ω – 0.99Ω	±200
						-	1Ω – 9.9Ω			±150
						10Ω – 200Ω				±100
45 (4525)	2W 3W	-55 ~ +155°C	350V	700V	500V	-			0.1Ω – 0.49Ω	±300
						-			0.5Ω – 0.99Ω	±200
						-	1Ω – 9.9Ω			±150
						10Ω – 1KΩ				±100
27 (6327)	3W 5W	-55 ~ +155°C	500V	800V	500V	-			0.1Ω – 0.49Ω	±300
						-			0.5Ω – 0.99Ω	±200
						-	1Ω – 9.9Ω			±150
						10Ω – 1.2KΩ				±100

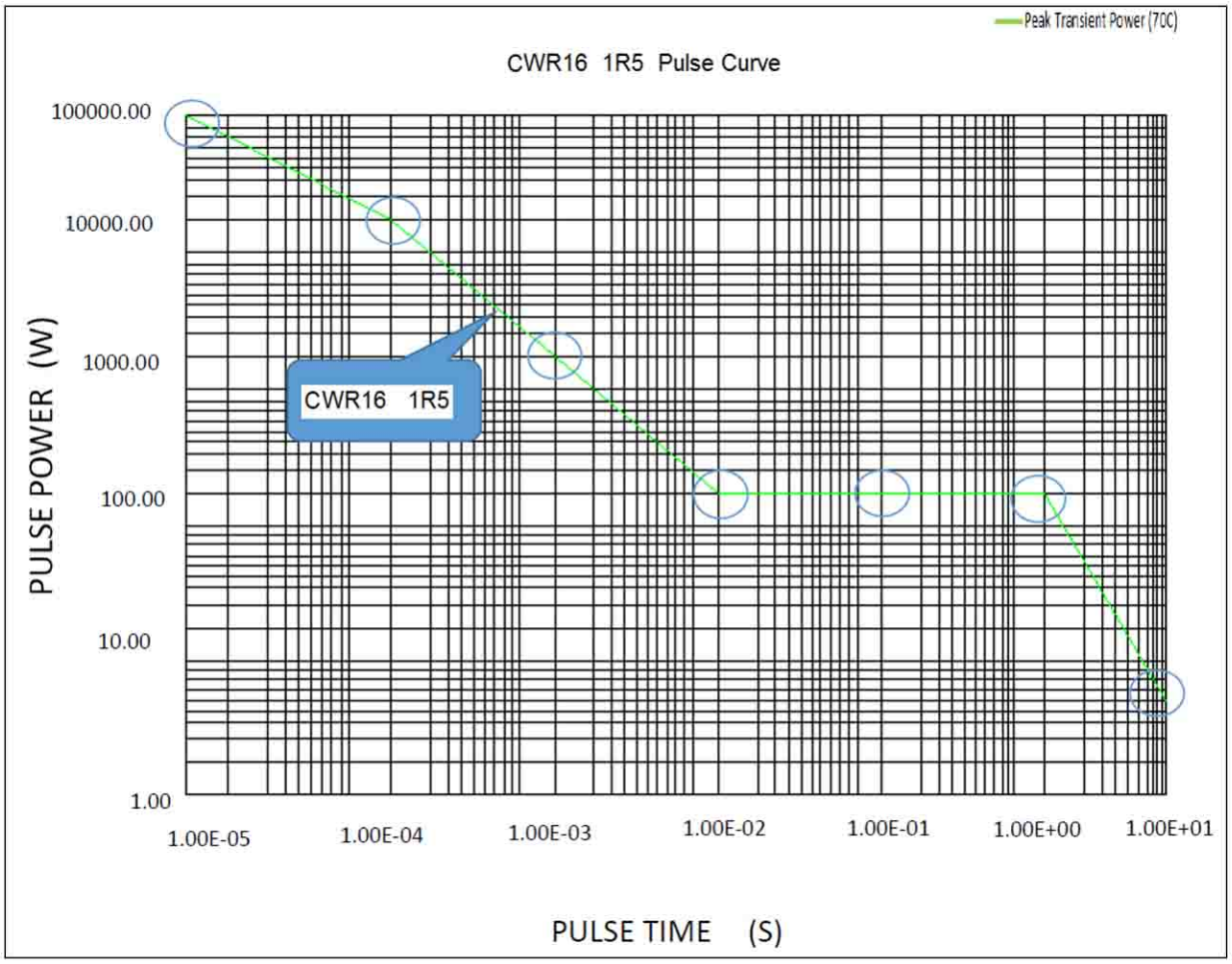
■For special TCR which is not shown in the above table, please check us.

■Environmental Characteristics

Item	Requirement	Test Method
Temperature Shock Test	±(5% +0.05Ω)	-25°C for 30min, 25°C for 10min and 70°C for 30min as a cycle, 5cycles
Short Time Overload	±(2% +0.05Ω)	RCWV*2.5 or Max. overload voltage whichever is lower for 5 seconds
Endurance	±(5% +0.05Ω)	70±3°C, RCWV for 1000±48 hrs with 1.5 hrs “ON” and 0.5 hrs “OFF”
Damp Heat with Load	±(5% +0.05Ω)	40±2°C, 90~95% R.H. RCWV for 1000±48 hrs with 1.5 hrs “ON” and 0.5 hrs “OFF”
Solderability	95% min. coverage	245±5°C for 3 seconds
Dielectric Withstand Voltage	1000MΩ	Apply 500V~1000V for 1 minute

■Pulse Curve




Peak Transient Power (70C)
CWR16 1R5 Pulse Curve
100000.00
10000.00
1000.00
100.00
10.00
1.00
PULSE POWER (W)
CWR16 1R5
1.00E-05
1.00E-04
1.00E-03
1.00E-02
1.00E-01
1.00E+00
1.00E+01
PULSE TIME (S)