

RC2010JK-07200KL Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	RC2010JK-07200KL-DG
Manufacturer	YAGEO
Manufacturer Product Number	RC2010JK-07200KL
Description	RES 200K OHM 5% 3/4W 2010
Detailed Description	200 kOhms $\pm 5\%$ 0.75W, 3/4W Chip Resistor 2010 (5 025 Metric) Moisture Resistant Thick Film

This model RC2010JK-07200KL is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

 [Request a Quote](#)

 [Datasheet Search](#)



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

RC2010JK-07200KL

Series:

RC_L

Resistance:

200 kOhms

Power (Watts):

0.75W, 3/4W

Features:

Moisture Resistant

Operating Temperature:

-55°C ~ 155°C

Supplier Device Package:

2010

Height - Seated (Max):

0.026" (0.65mm)

Failure Rate:

-

Manufacturer:

YAGEO

Product Status:

Active

Tolerance:

±5%

Composition:

Thick Film

Temperature Coefficient:

±100ppm/°C

Package / Case:

2010 (5025 Metric)

Size / Dimension:

0.197" L x 0.098" W (5.00mm x 2.50mm)

Number of Terminations:

2

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8533.21.0030

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

DATA SHEET

GENERAL PURPOSE CHIP RESISTORS

RC_L series

$\pm 0.1\%$, $\pm 0.5\%$, $\pm 1\%$, $\pm 5\%$

Sizes 0075/0100/0201/0402/0603/0805/
1206/1210/1218/2010/2512

RoHS compliant & Halogen free



YAGEO

Product specification – August 02, 2022 V.12



SCOPE

This specification describes RC series chip resistors with lead free terminations made by thick film process.

APPLICATIONS

- All general purpose application

FEATURES

- Halogen Free Epoxy
- RoHS compliant
 - Products with lead free terminations meet RoHS requirements
 - Pb-glass contained in electrodes, resistors element and glass are exempted by RoHS
- Reducing environmentally hazardous wastes
- High component and equipment reliability
- Saving of PCB space
- None forbidden-materials used in products/production
- MSL class: MSL I

ORDERING INFORMATION - GLOBAL PART NUMBER

Global part numbers are identified by the series, size, tolerance, packing type, temperature coefficient, taping reel and resistance value.

GLOBAL PART NUMBER

RC XXXX X X X XX XXXX L
 (1) (2) (3) (4) (5) (6) (7)

(1) SIZE

0075/0100/0201/0402/0603/0805/1206/1210/1218/2010/2512

(2) TOLERANCE

B = $\pm 0.1\%$
 D = $\pm 0.5\%$
 F = $\pm 1.0\%$
 J = $\pm 5.0\%$ (for jumper ordering, use code of J)

(3) PACKAGING TYPE

R = Paper taping reel
 K = Embossed taping reel
 S = ESD safe reel (0075/0100 only)

(4) TEMPERATURE COEFFICIENT OF RESISTANCE

— = Based on spec.

(5) TAPING REEL & POWER

07 = 7 inch dia. Reel & Standard power
 10 = 10 inch dia. Reel
 13 = 13 inch dia. Reel
 7W = 7 inch dia. Reel & 2 x standard power
 7N = 7 inch dia. Reel, ESD safe reel (0075/0100 only)
 3W = 13 inch dia. Reel & 2 x standard power

(6) RESISTANCE VALUE

There are 2~4 digits indicated the resistance value.
 Letter R/K/M is decimal point
 Example:
 97R6 = 97.6Ω
 9K76 = 9760Ω
 1M = $1,000,000\Omega$

(7) DEFAULT CODE

Letter L is the system default code for ordering only. (Note)

ORDERING EXAMPLE

The ordering code for a RC0402 0.0625W chip resistor value $100K\Omega$ with $\pm 5\%$ tolerance, supplied in 7-inch tape reel of 10,000 units per reel is: RC0402JR-07100KL.

NOTE

1. All our RSMD products meet RoHS compliant and Halogen Free. "LFP" of the internal 2D reel label mentions "Lead Free Process".
2. On customized label, "LFP" or specific symbol can be printed.

MARKING

RC0075 / RC0100 / RC0201 / RC0402



No Marking

Fig. 1

RC0603



1%, 0.5%, E24 exception values 10/11/13/15/20/75 of E24 series

Fig. 2 $240 = 24 \times 10^0 = 24$ 

1%, 0.5%, E96 refer to EIA-96 marking method, including values 10/11/13/15/20/75 of E24 series

Fig. 3 $88A = 806 \times 10^0 = 806 \Omega$ 5%, E24 series : 3 digits
First two digits for significant figure and 3rd digit for number of zerosFig. 4 Value = 10 K Ω

RC0805 / RC1206 / RC1210 / RC2010 / RC2512

1%, 0.5%, E24/E96 series : 4 digits
First three digits for significant figure and 4th digit for number of zerosFig. 5 Value = 10 K Ω 5%, E24 series : 3 digits
First two digits for significant figure and 3rd digit for number of zerosFig. 6 Value = 10 K Ω

RC1218

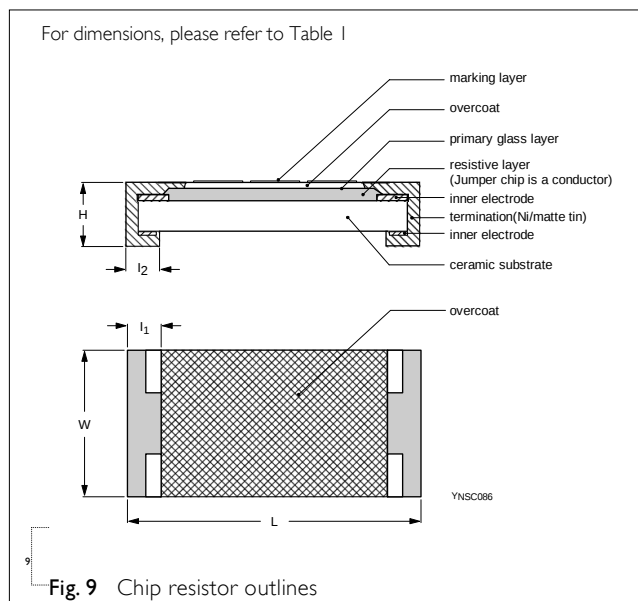
E-24 series: 3 digits, $\pm 5\%$
First two digits for significant figure and 3rd digit for number of zerosFig. 7 Value = 10 K Ω Both E-24 and E-96 series: 4 digits, $\pm 1\%$ & $\pm 0.5\%$
First three digits for significant figure and 4th digit for number of zerosFig. 8 Value = 10 K Ω

For further marking information, please see special data sheet "Chip resistors marking".

CONSTRUCTION

The resistor is constructed on top of a high-grade ceramic body. Internal metal electrodes are added on each end to make the contacts to the thick film resistive element. The composition of the resistive element is a noble metal imbedded into a glass and covered by a second glass to prevent environmental influences. The resistor is laser trimmed to the rated resistance value. The resistor is covered with a protective epoxy coat, finally the two external terminations (matte tin on Ni-barrier) are added, as shown in Fig.9.

Outlines



DIMENSION

Table 1

TYPE	L (mm)	W (mm)	H (mm)	I ₁ (mm)	I ₂ (mm)
RC0075	0.30±0.01	0.15±0.01	0.13±0.01	0.08±0.03	0.08±0.03
RC0100	0.40±0.02	0.20±0.02	0.13±0.02	0.10±0.03	0.10±0.03
RC0201	0.60±0.03	0.30±0.03	0.23±0.03	0.10±0.05	0.15±0.05
RC0402	1.00±0.05	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10
RC0603	1.60±0.10	0.80±0.10	0.45±0.10	0.25±0.15	0.25±0.15
RC0805	2.00±0.10	1.25±0.10	0.50±0.10	0.35±0.20	0.35±0.20
RC1206	3.10±0.10	1.60±0.10	0.55±0.10	0.45±0.20	0.45±0.20
RC1210	3.10±0.10	2.60±0.15	0.55±0.10	0.45±0.15	0.50±0.20
RC1218	3.10±0.10	4.60±0.10	0.55±0.10	0.45±0.20	0.40±0.20
RC2010	5.00±0.10	2.50±0.15	0.55±0.10	0.60±0.20	0.55±0.20
RC2512	6.35±0.10	3.10±0.15	0.55±0.10	0.60±0.20	0.60±0.20

ELECTRICAL CHARACTERISTICS

Table 2

CHARACTERISTICS	POWER	OPERATING TEMPERATURE RANGE	MAXIMUM WORKING VOLTAGE	MAXIMUM OVERLOAD VOLTAGE	DIELECTRIC WITHSTANDING VOLTAGE	RESISTANCE RANGE	TEMPERATURE COEFFICIENT	JUMPER CRITERIA
RC0075	1/50 W	-55°C to 125°C	10V	25V	25V	5% (E24)	10Ω ≤ R < 100Ω	Rated Current
						10Ω ≤ R ≤ 1MΩ	-200~+600ppm/°C	0.5A
						1% (E24/E96)	100Ω ≤ R ≤ 1MΩ	Maximum
						10Ω ≤ R ≤ 1MΩ	±200ppm/°C	Current
RC0100	1/32 W	-55°C to 125°C	15V	30V	30V	Jumper < 50mΩ		1.0A
						5% (E24)	1Ω ≤ R < 10Ω	Rated Current
						1Ω ≤ R ≤ 22MΩ	-200~+600ppm/°C	0.5A
						1% (E24/E96)	10Ω ≤ R < 100Ω:	Maximum
						1Ω ≤ R ≤ 10MΩ	±300ppm/°C	Current
RC2010	1/32 W	-55°C to 125°C	15V	30V	30V	0.5% (E24/E96)	100Ω ≤ R ≤ 10MΩ:	1.0A
						33Ω ≤ R ≤ 470KΩ	±200ppm/°C	
						Jumper < 50mΩ	10MΩ < R ≤	
							22MΩ:	
							±250ppm/°C	

Table 2

CHARACTERISTICS	POWER	OPERATING TEMPERATURE RANGE	MAXIMUM WORKING VOLTAGE	MAXIMUM OVERLOAD VOLTAGE	DIELECTRIC WITHSTANDING VOLTAGE	RESISTANCE RANGE	TEMPERATURE COEFFICIENT	JUMPER CRITERIA
RC0201	1/20 W	-55°C to 125°C	25V	50V	50V	5% (E24) $1\Omega \leq R \leq 10M\Omega$ 1% (E24/E96) $1\Omega \leq R \leq 10M\Omega$ 0.5% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.1% (E24/E96) $10\Omega \leq R \leq 1M\Omega$ Jumper<50mΩ	$1\Omega \leq R \leq 10\Omega$ -100~+350ppm/°C $10\Omega < R \leq 10M\Omega$ ±200ppm/°C	Rated Current 0.5A Maximum Current 1.0A
						5% (E24) $1\Omega \leq R \leq 22M\Omega$ 1% (E24/E96) $1\Omega \leq R \leq 10M\Omega$ 0.5% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.1% (E24/E96) $10\Omega \leq R \leq 1M\Omega$ Jumper<50mΩ	$1\Omega \leq R \leq 10\Omega$ ±200ppm/°C $10\Omega < R \leq 10M\Omega$ ±100ppm/°C $10M\Omega < R \leq 22M\Omega$ ±200ppm/°C	Rated Current 1.0A Maximum Current 2.0A
RC0402	1/16 W	-55°C to 155°C	50V	100V	100V	5% (E24) $1\Omega \leq R \leq 1M\Omega$ 1% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.5% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.1% (E24/E96) $10\Omega \leq R \leq 1M\Omega$ Jumper<50mΩ	$1\Omega \leq R \leq 1M\Omega$ ±200ppm/°C	Rated Current 1.0A Maximum Current 2.0A
						5% (E24) $1\Omega \leq R \leq 1M\Omega$ 1% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.5% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.1% (E24/E96) $10\Omega \leq R \leq 1M\Omega$ Jumper<50mΩ	$1\Omega \leq R \leq 1M\Omega$ ±200ppm/°C	Rated Current 1.0A Maximum Current 2.0A
RC0603	1/10 W	-55°C to 155°C	75V	150V	150V	5% (E24) $1\Omega \leq R \leq 22M\Omega$ 1% (E24/E96) $1\Omega \leq R \leq 10M\Omega$ 0.5% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.1% (E24/E96) $10\Omega \leq R \leq 1M\Omega$ Jumper<50mΩ	$1\Omega \leq R \leq 10\Omega$ ±200ppm/°C $10\Omega < R \leq 10M\Omega$ ±100ppm/°C $10M\Omega < R \leq 22M\Omega$ ±200ppm/°C	Rated Current 1.0A Maximum Current 2.0A
						5% (E24) $1\Omega \leq R \leq 1M\Omega$ 1% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.5% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.1% (E24/E96) $10\Omega \leq R \leq 1M\Omega$ Jumper<50mΩ	$1\Omega \leq R \leq 1M\Omega$ ±200ppm/°C	Rated Current 1.0A Maximum Current 2.0A
RC0805	1/8 W	-55°C to 155°C	150V	300V	300V	5% (E24) $1\Omega \leq R \leq 100M\Omega$ 1% (E24/E96) $1\Omega \leq R \leq 10M\Omega$ 0.5% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.1% (E24/E96) $10\Omega \leq R \leq 1M\Omega$ 10%, 20% (E24) $24M\Omega \leq R \leq 100M\Omega$ Jumper<50mΩ	$1\Omega \leq R \leq 10\Omega$ ±200ppm/°C $10\Omega < R \leq 10M\Omega$ ±100ppm/°C $10M\Omega < R \leq 22M\Omega$ ±200ppm/°C $24M\Omega < R \leq 100M\Omega$ ±300ppm/°C	Rated Current 2.0A Maximum Current 5.0A
						5% (E24) $1\Omega \leq R \leq 1M\Omega$ 1% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.5% (E24/E96) $1\Omega \leq R \leq 1M\Omega$ 0.1% (E24/E96) $10\Omega \leq R \leq 1M\Omega$ Jumper<50mΩ	$1\Omega \leq R \leq 1M\Omega$ ±200ppm/°C	Rated Current 2.0A Maximum Current 5.0A

FOOTPRINT AND SOLDERING PROFILES

For recommended footprint and soldering profiles, please refer to data sheet "Chip resistors mounting"

Table 3

CHARACTERISTICS	POWER	OPERATING TEMPERATURE RANGE	MAXIMUM WORKING VOLTAGE	MAXIMUM OVERLOAD VOLTAGE	DIELECTRIC WITHSTANDING VOLTAGE	RESISTANCE RANGE	TEMPERATURE COEFFICIENT	JUMPER CRITERIA
RC1206	1/4 W	-55°C to 155°C	200V	400V	500V	5% (E24) $1\Omega \leq R \leq 100M\Omega$	$1\Omega \leq R \leq 10\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	Rated Current 2.0A
						1% (E24/E96) $1\Omega \leq R \leq 10M\Omega$	$10\Omega < R \leq 10M\Omega$ $\pm 100\text{ppm}^\circ\text{C}$	Maximum Current 10.0A
RC1206	1/4 W	-55°C to 155°C	200V	400V	500V	0.5% (E24/E96) $1\Omega \leq R \leq 1M\Omega$	$10M\Omega < R \leq 22M\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	
						0.1% (E24/E96) $10\Omega \leq R \leq 1M\Omega$	$24M\Omega \leq R \leq$ $100M\Omega$	
RC1206	1/4 W	-55°C to 155°C	200V	400V	500V	10%, 20% (E24) $24M\Omega \leq R \leq 100M\Omega$	$\pm 300\text{ppm}^\circ\text{C}$	
						Jumper < 50mΩ		
RC1210	1/2 W	-55°C to 155°C	200V	400V	500V	5% (E24) $1\Omega \leq R \leq 1M\Omega$	$1\Omega \leq R \leq 1M\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	
						1% (E24/E96) $1\Omega \leq R \leq 1M\Omega$		
RC1210	1/2 W	-55°C to 155°C	200V	500V	500V	5% (E24) $1\Omega \leq R \leq 22M\Omega$	$1\Omega \leq R \leq 10\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	Rated Current 2.0A
						1% (E24/E96) $1\Omega \leq R \leq 10M\Omega$	$10\Omega < R \leq 10M\Omega$ $\pm 100\text{ppm}^\circ\text{C}$	Maximum Current 10.0A
RC1210	1/2 W	-55°C to 155°C	200V	500V	500V	0.1%, 0.5% (E24/E96) $10\Omega \leq R \leq 1M\Omega$	$10M\Omega < R \leq 22M\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	
						Jumper < 50mΩ		
RC1218	1 W	-55°C to 155°C	200V	500V	500V	5% (E24) $1\Omega \leq R \leq 1M\Omega$	$1\Omega \leq R \leq 10\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	Rated Current 6.0A
						1% (E24/E96) $1\Omega \leq R \leq 1M\Omega$	$10\Omega < R \leq 1M\Omega$ $\pm 100\text{ppm}^\circ\text{C}$	Maximum Current 10.0A
RC1218	1 W	-55°C to 155°C	200V	500V	500V	0.1%, 0.5% (E24/E96) $10\Omega \leq R \leq 1M\Omega$		
						Jumper < 50mΩ		
RC2010	3/4 W	-55°C to 155°C	200V	500V	500V	5% (E24) $1\Omega \leq R \leq 22M\Omega$	$1\Omega \leq R \leq 10\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	Rated Current 2.0A
						1% (E24/E96) $1\Omega \leq R \leq 10M\Omega$	$10\Omega < R \leq 10M\Omega$ $\pm 100\text{ppm}^\circ\text{C}$	Maximum Current 10.0A
RC2010	3/4 W	-55°C to 155°C	200V	500V	500V	0.1%, 0.5% (E24/E96) $10\Omega \leq R \leq 1M\Omega$	$10M\Omega < R \leq 22M\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	
						Jumper < 50mΩ		
RC2512	1 W	-55°C to 155°C	200V	500V	500V	5% (E24) $1\Omega \leq R \leq 22M\Omega$	$1\Omega \leq R \leq 10\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	Rated Current 2.0A
						1% (E24/E96) $1\Omega \leq R \leq 10M\Omega$	$10\Omega < R \leq 10M\Omega$ $\pm 100\text{ppm}^\circ\text{C}$	Maximum Current 10.0A
RC2512	1 W	-55°C to 155°C	200V	500V	500V	0.1%, 0.5% (E24/E96) $10\Omega \leq R \leq 1M\Omega$	$10M\Omega < R \leq 22M\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	
						Jumper < 50mΩ		
RC2512	2 W	-55°C to 155°C	200V	400V	500V	5% (E24) $1\Omega \leq R \leq 1M\Omega$	$1\Omega \leq R \leq 1M\Omega$ $\pm 200\text{ppm}^\circ\text{C}$	
						1% (E24/E96) $1\Omega \leq R \leq 1M\Omega$		

PACKING STYLE AND PACKAGING QUANTITY

Table 4 Packing style and packaging quantity

PACKING STYLE	PAPER TAPING REEL (R)			ESD SAFE REEL (S) (4MM WIDTH, 1MM PITCH PLASTIC EMBOSSSED)	EMBOSSSED TAPING REEL	
REEL DIMENSION	7" (178 mm)	10" (254mm)	13" (330 mm)	7" (178 mm)	7" (178 mm)	13" (330 mm)
RC0075	---	---	---	20000	---	---
RC0100	20000	---	80000	40000	---	---
RC0201	10000	20000	50000	---	---	---
RC0402	10000	20000	50000	---	---	---
RC0603	5000	10000	20000	---	---	---
RC0805	5000	10000	20000	---	---	---
RC1206	5000	10000	20000	---	---	---
RC1210	5000	10000	20000	---	---	---
RC1218	---	---	---	---	4000	---
RC2010	---	---	---	---	4000	16000
RC2512	---	---	---	---	4000	---

NOTE

For tape and reel specification/dimensions, please refer to data sheet "Chip resistors packing".

FUNCTIONAL DESCRIPTION**OPERATING TEMPERATURE RANGE**

RC0402 to RC2512 Range: -55°C to +155°C (Fig. 10-1)

RC0075 to RC0201 Range: -55°C to +125°C (Fig. 10-2)

POWER RATING

Each type rated power at 70°C:

RC0075=1/50W

RC0100=1/32W

RC0201=1/20W

RC0402=1/16W, 1/8W

RC0603=1/10W, 1/5W

RC0805=1/8W, 1/4W

RC1206=1/4W, 1/2W

RC1210=1/2W

RC1218=1W

RC2010=3/4W

RC2512=1W, 2W

RATED VOLTAGE

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

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

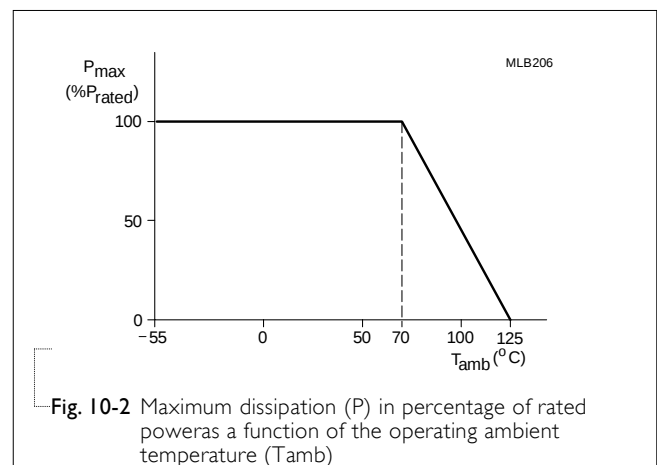
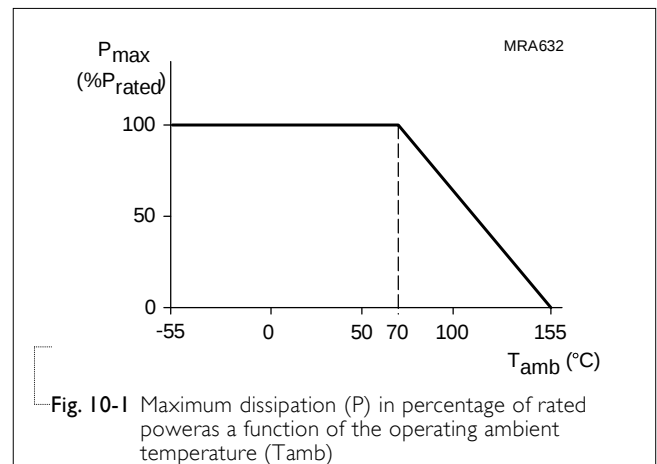
or max. working voltage whichever is less

Where

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

P = Rated power (W)

R = Resistance value (Ω)



TESTS AND REQUIREMENTS

Table 5 Test condition, procedure and requirements

TEST	TEST METHOD	PROCEDURE	REQUIREMENTS
Temperature Coefficient of Resistance (T.C.R.)	MIL-STD-202 Method 304	At +25/-55°C and +25/+125°C Formula: $T.C.R. = \frac{R_2 - R_1}{R_1(t_2 - t_1)} \times 10^6 \text{ (ppm/°C)}$ Where $t_1 = +25^\circ\text{C}$ or specified room temperature $t_2 = -55^\circ\text{C}$ or $+125^\circ\text{C}$ test temperature R_1 = resistance at reference temperature in ohms R_2 = resistance at test temperature in ohms	Refer to table 2
Life/Endurance	MIL-STD-202 Method 108 IEC 60115-1 7.1	At $70 \pm 2^\circ\text{C}$ for 1,000 hours; RCWV applied for 1.5 hours on and 0.5 hour off, still air required	0075: $\pm (5\% + 100\text{m}\Omega)$ $< 100\text{m}\Omega$ for jumper 01005: $\pm (3\% + 50\text{m}\Omega)$ $< 100\text{m}\Omega$ for jumper Others: $\pm (1\% + 50\text{m}\Omega)$ for B/D/F tol $\pm (3\% + 50\text{m}\Omega)$ for J tol $< 100\text{mR}$ for jumper
High Temperature Exposure	MIL-STD-202 Method 108	1,000 hours at maximum operating temperature depending on specification, unpowered.	0075: $\pm (5\% + 100\text{m}\Omega)$ $< 100\text{m}\Omega$ for jumper 01005: $\pm (1\% + 50\text{m}\Omega)$ $< 50\text{m}\Omega$ for jumper Others: $\pm (1\% + 50\text{m}\Omega)$ for B/D/F tol $\pm (2\% + 50\text{m}\Omega)$ for J tol $< 50\text{mR}$ for jumper
Moisture Resistance	MIL-STD-202 Method 106	Each temperature / humidity cycle is defined at 8 hours, 3 cycles / 24 hours for 10d with $25^\circ\text{C} / 65^\circ\text{C}$ 95% R.H, without steps 7a & 7b, unpowered Parts mounted on test-boards, without condensation on parts	0075: $\pm (2\% + 100\text{m}\Omega)$ $< 100\text{m}\Omega$ for jumper 01005: $\pm (2\% + 50\text{m}\Omega)$ $< 100\text{m}\Omega$ for jumper Others: $\pm (0.5\% + 50\text{m}\Omega)$ for B/ D/F tol $\pm (2\% + 50\text{m}\Omega)$ for J tol $< 100\text{mR}$ for jumper
Humidity	IEC 60115-1 10.4	Steady state for 1000 hours at $40^\circ\text{C} / 95\%$ R.H, RCWV applied for 1.5 hours on and 0.5 hour off	0075: $\pm (5\% + 100\text{m}\Omega)$ 01005: $\pm (3\% + 50\text{m}\Omega)$ $< 100\text{m}\Omega$ for jumper Others: $\pm (1\% + 50\text{m}\Omega)$ for B/D/F tol $\pm (2\% + 50\text{m}\Omega)$ for J tol $< 100\text{mR}$ for jumper

TEST	TEST METHOD	PROCEDURE	REQUIREMENTS
Thermal Shock	MIL-STD-202 Method 107	-55/+125°C Note Number of cycles required is 300. Devices mounted Maximum transfer time is 20 seconds. Dwell time is 15 minutes. Air - Air	0075/01005: $\pm(1\% + 50m\Omega)$ < 50m Ω for jumper Others: $\pm(0.5\% + 50m\Omega)$ for B/D/F tol $\pm(1\% + 50m\Omega)$ for J tol < 50mR for jumper
Short Time Overload	IEC 60115-1 8.1	2.5 times RCWV or maximum overload voltage which is less for 5 seconds at room temperature	0075/01005: $\pm(2\% + 50m\Omega)$ < 50m Ω for jumper Others: $\pm(1\% + 50m\Omega)$ for B/D/F tol $\pm(2\% + 50m\Omega)$ for J tol < 50mR for jumper No visible damage
Board Flex/Bending	IEC 60115-1 9.8	Device mounted or as described only 1 board bending required bending time: 60 $\pm$ 5 seconds 0075/0100/0201/0402:5mm; 0603/0805:3mm; 1206 and above:2mm	0075/01005: $\pm(1\% + 50m\Omega)$ < 50m Ω for jumper Others: $\pm(1\% + 50m\Omega)$ for B/D/F/J tol < 50mR for jumper No visible damage
Solderability - Wetting	J-STD-002 test B1	Electrical Test not required Magnification 50X SMD conditions: 1 st step: aging 4 hours at 155°C dry heat 2 nd step: method B1, leadfree solder bath at 245 $\pm$ 3°C Dipping time: 3 $\pm$ 0.5 seconds	Well tinned (>95% covered) No visible damage
-Leaching	J-STD-002 test D	Leadfree solder ,260°C, 30 seconds immersion time	No visible damage
-Resistance to Soldering Heat	MIL-STD-202 Method 210	Condition B, no pre-heat of samples Leadfree solder, 260°C $\pm$ 5°C, 10 $\pm$ 1 seconds immersion time Procedure 2 for SMD: devices fluxed and cleaned with isopropanol	0075: $\pm(3\% + 50m\Omega)$ < 50m Ω for jumper 01005: $\pm(1\% + 50m\Omega)$ < 50m Ω for jumper Others: $\pm(0.5\% + 50m\Omega)$ for B/D/F tol. $\pm(1\% + 50m\Omega)$ for J tol. < 50mR for jumper No visible damage

REVISION HISTORY

REVISION	DATE	CHANGE NOTIFICATION	DESCRIPTION
Version 12	Aug. 02, 2022	-	- I2 dimension updated, for size 1206, size 2010, size 2512.
Version 11	May 15, 2020	-	- Extend RC0201, RC0402, RC0603, RC0805, RC1206 D to I resistance range to 1ohm
Version 10	Dec. 12, 2018	-	- Updated 0075 dimensions
Version 9	Mar. 06, 2018	-	- Add 0.5%/1% marking rule for RC0603 ~ RC2512 based on marking datasheet
Version 8	July 10, 2017	-	- Add "3W" part number coding for 13" Reel & double power
Version 7	Mar. 7, 2017	-	- Add 10" packing
Version 6	Feb.15, 2017	-	- Extend RC0805 and RC1206 resistance range to 100Mohm
Version 5	Oct. 06, 2016	-	- Description: Update Dimension of I2 of RC2512 (2W)
Version 4	Jan. 22, 2016	-	- Update resistance range
Version 3	Dec. 24, 2015	-	- Updated test and requirements
Version 2	Jul. 23, 2015	-	- Updated test and requirements
Version 1	Jan. 21, 2015	-	- ESD Safe Reel update
Version 0	Dec. 15, 2014	-	- First issue of this specification

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 products are designed for general purpose applications under normal operation and usage conditions. Please contact YAGEO for the applications listed below which require especially high reliability for the prevention of defects which might directly cause damage to the third party's life, body or property: Aerospace equipment (artificial satellite, rocket, etc.), Atomic energy-related equipment, Aviation equipment, Disaster prevention equipment, crime prevention equipment, Electric heating apparatus, burning equipment, Highly public information network equipment, data-processing equipment, Medical devices, Military equipment, Power generation control equipment, Safety equipment, Traffic signal equipment, Transportation equipment and Undersea equipment, or for any other application or use in which the failure of YAGEO products could result in personal injury or death, or serious property damage. Particularly **YAGEO Corporation and its affiliates do not recommend the use of commercial or automotive grade products for high reliability applications or manned space flight.**

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.

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we stricly control the quality of products and services. Welcome your RFQ to
Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.