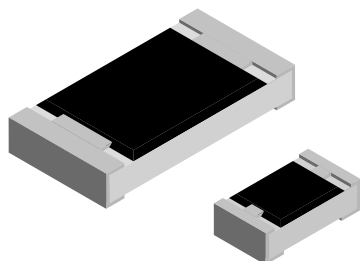


Thick Film, Rectangular, High Value Resistors



FEATURES

- Thick film on high quality ceramic
- Protective over glaze passivation
- SnPb contacts on Ni barrier layer
- Silver palladium contacts for conductive adhesive attachment on request
- Suitable for voltage dividers and hybrids

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	SIZE		POWER RATING P _{70°C} W	LIMITING ELEMENT VOLTAGE MAX V _≡	TEMPERATURE COEFFICIENT ppm/K	TOLERANCE %	RESISTANCE RANGE Ω	E-SERIES
	INCH	METRIC	CECC 40401-802/EIA-575					
D11HR CRCW0603	0603	1608	0.1	75	± 500	± 5	11M - 470M	24
D12HR CRCW0805	0805	2012	0.125	150	± 500	± 5	11M - 470M	24
D25HR CRCW1206	1206	3216	0.25	200	± 500	± 5	11M - 470M	24

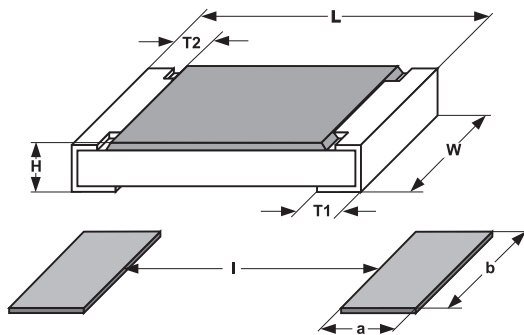
- Ask about further value ranges
- Marking and packaging: see appropriate catalog or web page

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	D11 CRCW0603	D12 CRCW0805	D25 CRCW1206
Rated Dissipation at 70°C	W	0.1	0.125	0.25
Limiting Element Voltage ²⁾	V _≡	75	150	200
Voltage Coefficient	% / V	< 100M: < 0.1 / > 100M: < 0.3		
Insulation Voltage (1 min)	V _{dc/ac peak}	> 100	> 200	> 300
Thermal Resistance	K/W	≤ 550 ¹⁾	≤ 440 ¹⁾	≤ 220 ¹⁾
Insulation Resistance	Ω	> 10 ⁹		
Category Temperature Range	°C	- 55 to + 125 (+ 155)		
Weight / 1000pcs	g	2	5.5	10

¹⁾ Measuring conditions in acc. to CECC 40401-802

²⁾ Rated voltage: $\sqrt{P \times R}$

DIMENSIONS


SIZE		DIMENSIONS [in millimeters]				
INCH	METRIC	L	W	H	T1	T2
0603	1608	$1.55^{+0.10}_{-0.05}$	0.85 ± 0.1	0.45 ± 0.05	$0.3^{+0.20}_{-0.10}$	0.3 ± 0.2
0805	2012	$2.0^{+0.20}_{-0.10}$	1.25 ± 0.15	0.45 ± 0.05	$0.3^{+0.20}_{-0.10}$	0.3 ± 0.2
1206	3216	$3.2^{+0.10}_{-0.20}$	1.6 ± 0.15	0.55 ± 0.05	0.45 ± 0.2	0.4 ± 0.2

For solder pad dimensions see D...CRCW...LR

PART NUMBER AND PRODUCT DESCRIPTION
PART NUMBER: D120805P1405JP0HR
D 1 2 0 8 0 5 0 P 1 4 0 5 J P 0 H R

MODEL/SIZE	SPECIAL CHARACTER	T.C.	VALUE	TOLERANCE	PACKING	SPECIAL
D110603 D120805 D251206	0 = neutral	P = ± 500 ppm/K	3 digit value 1 digit multiplier MULTIPLIER 7 = $*10^{-3}$ 2 = $*10^2$ 8 = $*10^{-2}$ 3 = $*10^3$ 9 = $*10^{-1}$ 4 = $*10^4$ 0 = $*10^0$ 5 = $*10^5$ 1 = $*10^1$ 6 = $*10^6$	J = $\pm 5\%$	P5 P0 PN B5 BN	up to 2 digits HR = High Value

PRODUCT DESCRIPTION: D12HR 500 14M 5% P0

D12HR	500	14M	5%	P0
MODEL D11HR D12HR D25HR	TC ± 500 ppm/K	RESISTANCE VALUE 68M = 48 M Ω 220M = 220 M Ω	TOLERANCE $\pm 5\%$	PACKING ¹⁾ P5 P0 PN B5 BN

PART NUMBER: CRCW060314M0JPTBHR
C R C W 0 6 0 3 1 4 M 0 J P T B H R

MODEL/SIZE	VALUE	TOLERANCE	T.C.	PACKING	SPECIAL
CRCW0603 CRCW0805 CRCW1206		J = $\pm 5\%$	P = ± 500 ppm/K	TA = RT1 TB = RT5 TC = RT6	up to 2 digits HR = High Value

PRODUCT DESCRIPTION: CRCW0603 146 J 500 RT5

CRCW0603	146	J	500	RT5
MODEL CRCW0603 CRCW0805 CRCW1206	RESISTANCE VALUE 686 = 68 M Ω 227 = 220 M Ω	TOLERANCE J = $\pm 5\%$	T.C. ± 500 ppm/K	PACKING ¹⁾ RT1 RT5 RT6

 $\pm 5\% = 2$ sig. digits, plus multiplier

NOTE: 1) Please refer to table PACKING, page 3.

PACKING					
MODEL	REEL				
	TAPE WIDTH	DIAMETER	PIECES/REEL	PACKING CODE	
				PAPER ¹⁾	BLISTER
D11 ----- CRCW0603	8mm	180mm/7"	5 000	P5/RT1	B5
		255mm/10"	10 000	P0/RT5	
		330mm/13"	20 000	PN/RT6	BN
D12 ----- CRCW0805	8mm	180mm/7"	5 000	P5/RT1	B5
		255mm/10"	10 000	P0/RT5	
		330mm/13"	20 000	PN/RT6	BN
D25 ----- CRCW1206	8mm	180mm/7"	5 000	P5/RT1	B5
		255mm/10"	10 000	P0/RT5	
		330mm/13"	20 000	PN/RT6	BN

¹⁾ European / N. American packaging codes

PERFORMANCE		
TEST	CONDITIONS OF TEST	REQUIREMENTS ¹⁾
Endurance Test at 70°C IEC 60115-1 4.25.1	1000 hours at 70°C, 1.5 hours "ON", 0.5 hours "OFF"	≤ ± 2%
Endurance at UCT IEC 60115-1 4.25.3	1000 hours at 125°C without load	≤ ± 2%
Overload Test IEC 60115-1 4.13	Short time overload for 2 seconds	≤ ± 2%
Thermal Shock IEC 60115-1 4.19; IEC 60068-2-14;	Rapid change between upper and lower category temperature	≤ ± 1%
Damp Heat Steady State IEC 60115-1 4.24; IEC 60068-2-3	56 days at 40°C and 93% relative humidity	≤ ± 2%
Resistance to Soldering Heat IEC 60115-1 4.18; IEC 60068-2-20	10 seconds at 260°C solder bath temperature	≤ ± 1%

¹⁾ Limits for change of resistance at test



APPLICABLE SPECIFICATIONS

- CECC40000 / 40400 / 40401-802
- EIA 575
- EN140400 / IEC 60115 – 1