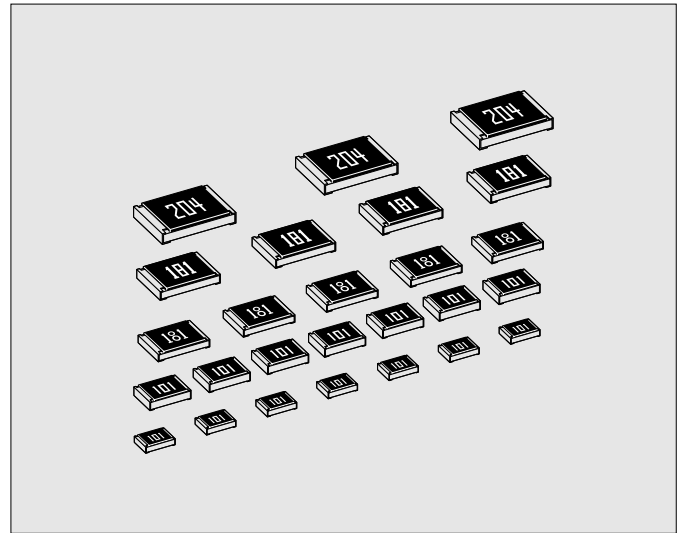


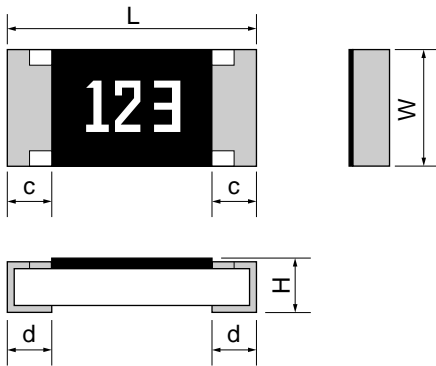
# RVC

## •Features

1. Higher Limiting Element Voltage compared with RMC (general use)
2. Stability Class : 5%



## •Dimensions



Rated resistance is marked with 3-digit (E24) or 4-digit (E96) on the over coating.  
RVC16 : only 3digit marking is available.

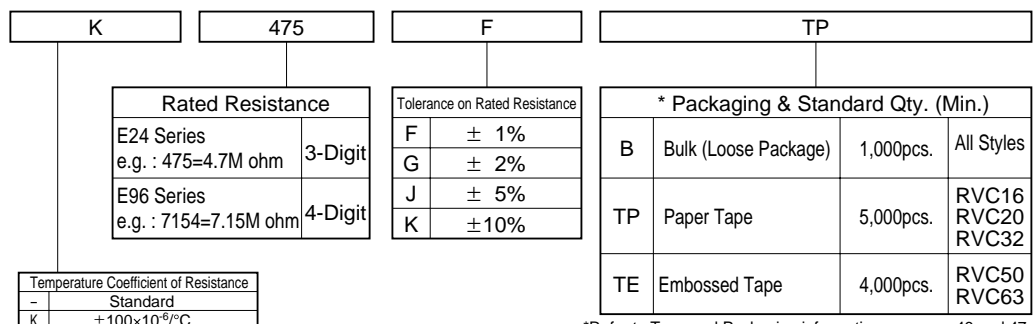
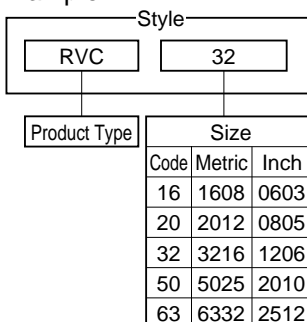
Unit : mm

| Style | Metric | Inch | L        | W                                     | H         | c        | d        | *Unit weight/pc. |
|-------|--------|------|----------|---------------------------------------|-----------|----------|----------|------------------|
| RVC16 | 1608   | 0603 | 1.6±0.1  | 0.8 <sup>+0.15</sup> <sub>-0.05</sub> | 0.45±0.10 | 0.3±0.1  | 0.3±0.1  | 2mg              |
| RVC20 | 2012   | 0805 | 2.0±0.1  | 1.25±0.10                             | 0.55±0.10 | 0.4±0.2  | 0.4±0.2  | 5mg              |
| RVC32 | 3216   | 1206 | 3.2±0.15 | 1.6±0.15                              | 0.55±0.10 | 0.5±0.25 | 0.5±0.25 | 9mg              |
| RVC50 | 5025   | 2010 | 5.0±0.15 | 2.5±0.15                              | 0.55±0.15 | 0.6±0.2  | 0.6±0.2  | 25mg             |
| RVC63 | 6332   | 2512 | 6.3±0.15 | 3.2±0.15                              | 0.55±0.15 | 0.6±0.2  | 0.6±0.2  | 40mg             |

\*Values for reference

## •Part Number Description

Example



\*Refer to Tape and Packaging information on pages 46 and 47.

FIXED THICK FILM CHIP RESISTORS; RECTANGULAR TYPE & HIGH VOLTAGE

RVC

• Ratings

| Style | Size Metric (Inch) | Rated Dissipation at 70°C W | Limiting Element Voltage V | Combinations of Rated Resistance Range and Tolerance on Rated Resistance |                 | Temperature Coefficient of Resistance 10 <sup>-6</sup> /°C |           | Preferred Number Series for Resistors                      | Isolation Voltage V | Category Temperature Range °C |
|-------|--------------------|-----------------------------|----------------------------|--|-----------------|--|-----------|--|---------------------|-------------------------------|
|       |                    |                             |                            | F(±1%), G(±2%)   | J(±5%), K(±10%) | Code   |           |  |                     |                               |
| RVC16 | 1608 (0603)        | 0.1                         | 200                        | 470Ω ~ 10MΩ  |                 | K  | ±100      | F(±1%)<br>G(±2%)<br>E96<br>E24<br>J(±5%)<br>K(±10%)<br>E24 | 100                 | -55~+125                      |
|       |                    |                             |                            | 47Ω ~ 464Ω   |                 | -  | ±200      |  |                     |                               |
| RVC20 | 2012 (0805)        | 0.125                       | 400                        | 100Ω~10MΩ  | 100Ω~51MΩ       | K  | ±100      |  | 500                 |                               |
|       |                    |                             |                            | 47Ω ~ 97.6Ω  |                 | -  | ±200      |  |                     |                               |
| RVC32 | 3216 (1206)        | 0.25                        | 500                        | 100Ω~10MΩ  | 100Ω~51MΩ       | K  | ±100      |  | 500                 |                               |
|       |                    |                             |                            | 47Ω ~ 97.6Ω  |                 | -  | ±200      |  |                     |                               |
| RVC50 | 5025 (2010)        | 0.5                         | 500                        | 470Ω~20MΩ  | 470Ω~51MΩ       | K  | ±100      | 500  |                     |                               |
|       |                    |                             |                            | 47Ω ~ 464Ω   |                 | -  | ±200      |  |                     |                               |
| RVC63 | 6332 (2512)        | 1.0                         | 800                        | 560Ω~20MΩ  | 560Ω~51MΩ       | K  | ±100      | 500  |                     |                               |
|       |                    |                             |                            | 100Ω ~ 549Ω  |                 | -  | ±200      |  |                     |                               |
|       |                    |                             |                            | 47Ω ~ 97.6Ω  |                 | -  | ±500~-200 |  |                     |                               |

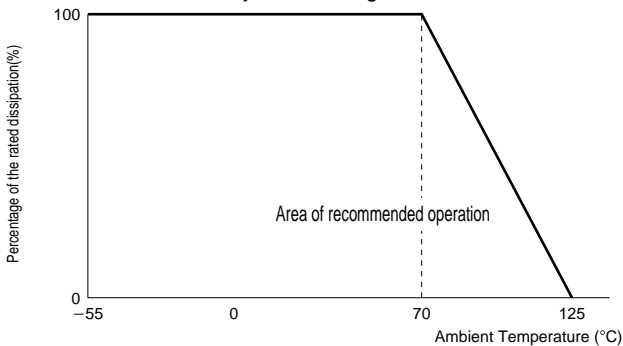
Note1. Rated Voltage = √(Rated Dissipation)×(Rated Resistance). (d.c. or a.c. r.m.s. Voltage)

Note2. Limiting Element Voltage can only be applied to resistors when the resistance value is equal to or higher than the critical resistance value.

Note3. Critical Resistance Value is the resistance value at which the rated voltage is equal to the limiting element voltage.

• Derating Curve

The derated values of dissipation for temperatures in excess of 70°C shall be indicated by the following Curve.



• Climatic Category

55/125/56

Lower Category Temperature -55°C  
 Upper Category Temperature +125°C  
 Duration of the Damp heat, Steady-State Test 56 days

• Performance Characteristics JIS C 5201-1 : 1998

| Description                                 | Requirements  | Test Methods  |
|---|---|---|
| Voltage proof                               | No breakdown or flashover<br>R≥1G ohm                   | Clause 4.7 RVC16 100Va.c.,60s<br>RVC20~RVC63 500Va.c.,60s   |
| Variation of resistance with temperature    | See Ratings Table                                       | Clause 4.8 Measuring temperature :+20°C/-55°C/+20°C/+125°C/+20°C  |
| Overload                                    | ΔR≤±(1%+0.05 ohm)<br>No visible damage, legible marking | Clause 4.13 The applied voltage shall be 2.5 times of the rated voltage or twice of the limiting element voltage, whichever is the less severe, 2s. |
| Solderability                               | In accordance with Clause 4.17.4.5                      | Clause 4.17 235°C, 2s   |
| Resistance to soldering heat                | ΔR≤±(1%+0.05 ohm)                                       | Clause 4.18 After immersion into the flux, the immersion into solder shall be carried out in Solder bath at 260°C for 5s.                           |
| Rapid change of temperature                 | ΔR≤±(1%+0.05 ohm) No visible damage                     | Clause 4.19 5 cycles between -55°C and +125°C.  |
| Climatic sequence                           | ΔR≤±(5%+0.1 ohm) No visible damage                      | Clause 4.23 Dry/Damp heat(12+12h cycle), first cycle./ Cold/Damp heat(12+12h cycle), remaining cycle. /D.C.Load.                                    |
| Damp test, steady state                     | ΔR≤±(5%+0.1 ohm) No visible damage, legible marking     | Clause 4.24 40°C, 95%R.H., 56 days, test a) and b) of Clause 4.24.2.1   |
| Endurance at 70°C                           | ΔR≤±(5%+0.1 ohm) No visible damage                      | Clause 4.25.1 Rated voltage, 1.5h"ON", 0.5h"OFF", 70°C, 1,000h.   |
| Endurance at the upper category temperature | ΔR≤±(5%+0.1 ohm) No visible damage                      | Clause 4.25.3 125°C, no-load, 1,000h.   |
| Adhesion                                    | No visible damage                                       | Clause 4.32 5N, 10s   |
| Bend strength of the face plating           | ΔR≤±(1%+0.05 ohm)                                       | Clause 4.33 RVC16~RVC32 Amount of bend : 3 mm<br>RVC50, 63 Amount of bend : 1 mm  |