

### Features:

- Reliable multilayer terminals
- Higher component and equipment reliability
- Excellent performance at high voltage
- Special construction to prevent sulfur contamination
- RoHS compliant, REACH compliant, and halogen free
- AEC-Q200 qualified



### Electrical Specifications

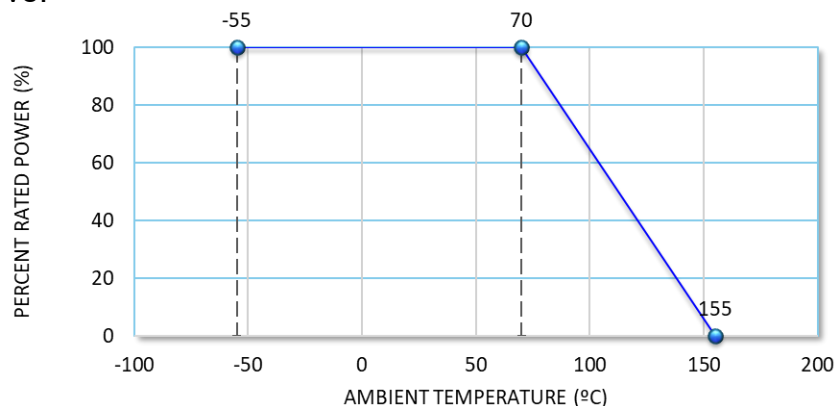
| Type/Code | Power Rating (W)<br>@ 70°C | Maximum Operating<br>Voltage (V) <sup>(1)</sup> | Maximum Overload<br>Voltage (V) <sup>(2)</sup> | TCR<br>(ppm/°C) | Ohmic Range (Ω) and Tolerance |            |
|-----------|----------------------------|-------------------------------------------------|------------------------------------------------|-----------------|-------------------------------|------------|
|           |                            |                                                 |                                                |                 | 1%                            | 5%         |
| RVCA0402  | 0.063                      | 100                                             | 200                                            | ± 100           | 39K - 1M                      |            |
|           |                            |                                                 |                                                | ± 200           | 1.02M - 10M                   | 1.1M - 20M |
|           |                            |                                                 |                                                | ± 400           | -                             | 22M - 100M |
| RVCA0603  | 0.1                        | 200                                             | 400                                            | ± 100           | 56K - 1M                      |            |
|           |                            |                                                 |                                                | ± 200           | 1.02M - 10M                   | 1.1M - 20M |
|           |                            |                                                 |                                                | ± 400           | -                             | 22M - 100M |
| RVCA0805  | 0.125                      | 400                                             | 800                                            | ± 100           | 100K - 1M                     |            |
|           |                            |                                                 |                                                | ± 200           | 1.02M - 10M                   | 1.1M - 20M |
|           |                            |                                                 |                                                | ± 400           | -                             | 22M - 100M |
| RVCA1206  | 0.25                       | 500                                             | 1000                                           | ± 100           | 100K - 1M                     |            |
|           |                            |                                                 |                                                | ± 200           | 1.02M - 10M                   | 1.1M - 20M |
|           |                            |                                                 |                                                | ± 400           | -                             | 22M - 100M |
| RVCA2010  | 0.5                        | 2000                                            | 3000                                           | ± 100           | 51K - 1M                      |            |
|           |                            |                                                 |                                                | ± 200           | 1.02M - 10M                   | 1.1M - 20M |
|           |                            |                                                 |                                                | ± 400           | -                             | 22M - 100M |
| RVCA2512  | 1                          | 3000                                            | 4000                                           | ± 100           | 30K - 1M                      |            |
|           |                            |                                                 |                                                | ± 200           | 1.02M - 10M                   | 1.1M - 20M |
|           |                            |                                                 |                                                | ± 400           | -                             | 22M - 100M |

(1) Operating Voltage =  $\sqrt{P \cdot R}$  or max. operating voltage listed above, whichever is lower.

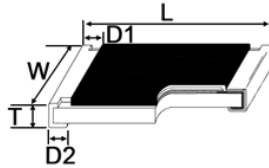
(2) Overload Voltage =  $2.5 \cdot \sqrt{P \cdot R}$  or max. overload voltage listed above, whichever is lower.

Operating temperature range is -55 to +155°C

### Power Derating Curve:



## Mechanical Specifications



| Type/Code | Typical Unit Weight (mg) | L<br>Body Length             | W<br>Body Width              | T<br>Body Height             | D1<br>Top Termination        | D2<br>Bottom Termination     | Unit         |
|-----------|--------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|--------------|
| RVCA0402  | 0.62                     | 0.039 ± 0.002<br>1.00 ± 0.05 | 0.020 ± 0.002<br>0.50 ± 0.05 | 0.014 ± 0.002<br>0.35 ± 0.05 | 0.008 ± 0.004<br>0.20 ± 0.10 | 0.010 ± 0.004<br>0.25 ± 0.10 | inches<br>mm |
| RVCA0603  | 2.0                      | 0.063 ± 0.004<br>1.60 ± 0.10 | 0.031 ± 0.004<br>0.80 ± 0.10 | 0.018 ± 0.004<br>0.45 ± 0.10 | 0.012 ± 0.008<br>0.30 ± 0.20 | 0.012 ± 0.008<br>0.30 ± 0.20 | inches<br>mm |
| RVCA0805  | 4.4                      | 0.079 ± 0.004<br>2.00 ± 0.10 | 0.049 ± 0.004<br>1.25 ± 0.10 | 0.020 ± 0.004<br>0.50 ± 0.10 | 0.014 ± 0.008<br>0.35 ± 0.20 | 0.016 ± 0.008<br>0.40 ± 0.20 | inches<br>mm |
| RVCA1206  | 8.9                      | 0.122 ± 0.004<br>3.10 ± 0.10 | 0.061 ± 0.004<br>1.55 ± 0.10 | 0.022 ± 0.004<br>0.55 ± 0.10 | 0.020 ± 0.010<br>0.50 ± 0.25 | 0.020 ± 0.008<br>0.50 ± 0.20 | inches<br>mm |
| RVCA2010  | 24.2                     | 0.197 ± 0.004<br>5.00 ± 0.10 | 0.098 ± 0.006<br>2.50 ± 0.15 | 0.022 ± 0.004<br>0.55 ± 0.10 | 0.024 ± 0.010<br>0.60 ± 0.25 | 0.020 ± 0.008<br>0.50 ± 0.20 | inches<br>mm |
| RVCA2512  | 39.4                     | 0.250 ± 0.004<br>6.35 ± 0.10 | 0.122 ± 0.006<br>3.10 ± 0.15 | 0.022 ± 0.004<br>0.55 ± 0.10 | 0.024 ± 0.010<br>0.60 ± 0.25 | 0.020 ± 0.008<br>0.50 ± 0.20 | inches<br>mm |

## Performance Characteristics

| Item                                        | Test Method                                                                                                                         | Requirement                                                |                 |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------|
|                                             |                                                                                                                                     | ± 1%                                                       | ± 5%            |
| Temperature Coefficient of Resistance (TCR) | JIS-C-5201-1 4.8; IEC-60115-1 4.8<br>At 25°C/-55°C and 25°C/+125°C, 25°C is the reference temperature                               | As specified                                               |                 |
| Short Time Overload                         | JIS-C-5201-1 4.13; IEC-60115-1 4.13<br>RCWV*2.5 or Max. Overload Voltage, whichever is lower for 5 seconds                          | ± (1% + 0.05Ω)                                             | ± (2% + 0.05Ω)  |
| Insulation Resistance                       | JIS-C-5201-1 4.6; IEC-60115-1 4.6<br>Max. Overload Voltage for 1 minute                                                             | ≥ 10 G                                                     |                 |
| Operational Life                            | MIL-STD-202 Method 108<br>Condition D steady State TA=125°C at derated power.<br>Measurement at 24 ± 4 hours after test conclusion. | ± (2% + 0.05Ω)                                             | ± (3% + 0.1Ω)   |
| Biased Humidity                             | MIL-STD-202 Method 103<br>1000 hours 85°C/85% R.H. 10% of operating power (≤ 100 V)                                                 | ± (2% + 0.05Ω)                                             | ± (3% + 0.1Ω)   |
| High Temperature Exposure                   | MIL-STD-202 Method 108<br>at +155°C for 1000 hours                                                                                  | ± (1% + 0.05Ω)                                             | ± (1.5% + 0.1Ω) |
| Board Flex                                  | AEC-Q200-005<br>Bending once for 60 seconds<br>2010, 2512 sizes: 2 mm; Other sizes: 3 mm                                            | ± (1% + 0.05Ω)                                             |                 |
| Solderability                               | JIS-C-5201-1 4.17; IEC-60115-1 4.17<br>245 ± 5°C for 3 seconds                                                                      | 95% min. coverage                                          |                 |
| Resistance to Soldering Heat                | JIS-C-5201-1 4.18; IEC-60115-1 4.18<br>260 ± 5°C for 10 seconds                                                                     | ± (0.5% + 0.05Ω)                                           | ± (1% + 0.05Ω)  |
| Voltage Proof                               | JIS-C-5201-1 4.7; IEC-60115-1 4.7<br>0402: 150 V for 1 minute<br>0603: 300 V for 1 minute<br>All other sizes: 500 V for 1 minute    | No breakdown or flashover                                  |                 |
| Leaching                                    | JIS-C-5201-1 4.18; IEC-60068-2-58 8.2.1<br>260 ± 5°C for 30 seconds                                                                 | Individual leaching area ≤ 5%<br>Total leaching area ≤ 10% |                 |
| Temperature Cycling                         | JESD22 Method JA-104<br>-55 to + 125°C, 1000 cycles                                                                                 | ± (1% + 0.05Ω)                                             |                 |

### Performance Characteristics (cont.)

| Item                   | Test Method                                                                                                                   | Requirement                                                        |                    |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------|
|                        |                                                                                                                               | $\pm 1\%$                                                          | $\pm 5\%$          |
| Mechanical Shock       | MIL-STD-202 Method 213<br>Wave form: Tolerance for half sine shock pulse.<br>Peak value is 100 g's. Normal duration (D) is 6. | $\pm (1\% + 0.05\Omega)$                                           |                    |
| Vibration              | MIL-STD-202 Method 204<br>5 g's for 20 minutes, 12 cycles each of 3 orientations,<br>10 - 2000 Hz                             | $\pm (1\% + 0.05\Omega)$                                           |                    |
| ESD                    | AEC-Q200-002<br>Human body model<br>0402/0603: 1 KV<br>All other sizes: 2 KV                                                  | $\pm (3\% + 0.05\Omega)$                                           |                    |
| Resistance to Solvents | MIL-STD-202 Method 215<br>Add aqueous wash chemical - OKEM Clean or equivalent.<br>Do not use banned solvents                 | No visible damage on appearance and marking.                       |                    |
| Terminal Strength      | AEC-Q200-006<br>Force of 1.8 kg for 60 seconds                                                                                | No breakage                                                        |                    |
| Flammability           | UL-94<br>V-0 or V-1 are acceptable. Electrical test not required.                                                             | No ignition of the tissue paper or scorching on the pinewood board |                    |
| Sulfur Test            | EIA-977 (Condition A)<br>60 $\pm$ 2°C, no power rating for 500 hours                                                          | $\Delta R \pm 1\%$                                                 | $\Delta R \pm 5\%$ |

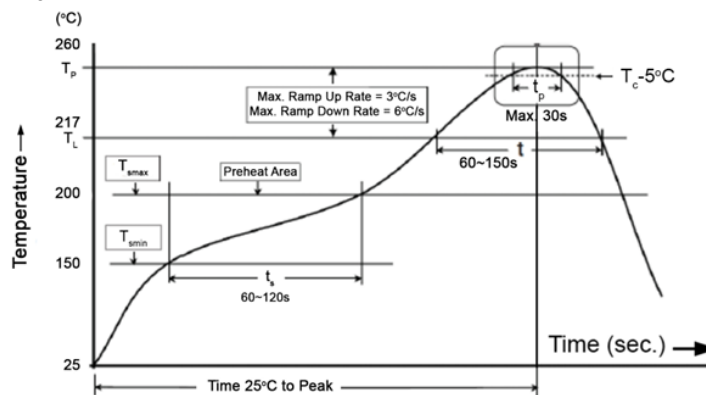
RCWV (Rated continuous working voltage) =  $\sqrt{P \cdot R}$  or max. operating voltage, whichever is lower.

Storage temperature is 15~28 °C, Humidity < 80% R.H.

Shelf life is 2 years from production date.

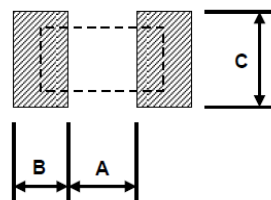
### Soldering Conditions

Number of reflow cycles allowed: 3 times.



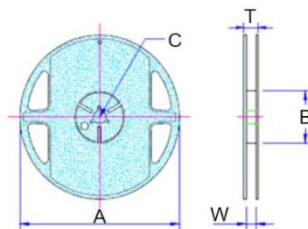
| Profile Feature                                                                                 | Pb-Free Assembly |
|-------------------------------------------------------------------------------------------------|------------------|
| Preheat:                                                                                        |                  |
| Min. temperature (T <sub>min</sub> )                                                            | 150°C            |
| Max. temperature (T <sub>max</sub> )                                                            | 200°C            |
| Preheating time (t <sub>s</sub> ) from (T <sub>min</sub> to T <sub>max</sub> )                  | 60-120 seconds   |
| Ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )                                                | 3°C/second max.  |
| Liquidous temperature (T <sub>L</sub> )                                                         | 217°C            |
| Time (t <sub>L</sub> ) maintained above T <sub>L</sub>                                          | 60-150 seconds   |
| Min. Peak temperature (T <sub>P</sub> min)                                                      | 235°C            |
| Max. Peak temperature (T <sub>P</sub> max)                                                      | 260°C            |
| Time (t <sub>p</sub> ) within 5°C of the specified classification temperature (T <sub>C</sub> ) | 30 seconds max.  |
| Ramp-down rate (T <sub>P</sub> to T <sub>L</sub> )                                              | 6°C/second max.  |
| Time 25°C to peak temperature                                                                   | 8 minutes max.   |

### Recommended Pad Layout



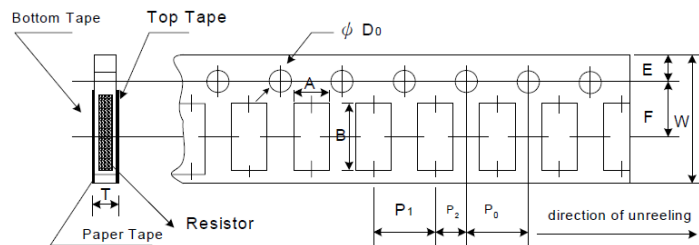
| Type/Code | A             | B             | C             | Unit         |
|-----------|---------------|---------------|---------------|--------------|
| RVCA0402  | 0.020<br>0.50 | 0.018<br>0.45 | 0.024<br>0.60 | inches<br>mm |
| RVCA0603  | 0.035<br>0.90 | 0.024<br>0.60 | 0.035<br>0.90 | inches<br>mm |
| RVCA0805  | 0.047<br>1.20 | 0.028<br>0.70 | 0.051<br>1.30 | inches<br>mm |
| RVCA1206  | 0.079<br>2.00 | 0.035<br>0.90 | 0.063<br>1.60 | inches<br>mm |
| RVCA2010  | 0.150<br>3.80 | 0.035<br>0.90 | 0.110<br>2.80 | inches<br>mm |
| RVCA2512  | 0.193<br>4.90 | 0.063<br>1.60 | 0.138<br>3.50 | inches<br>mm |

### Reel Specifications



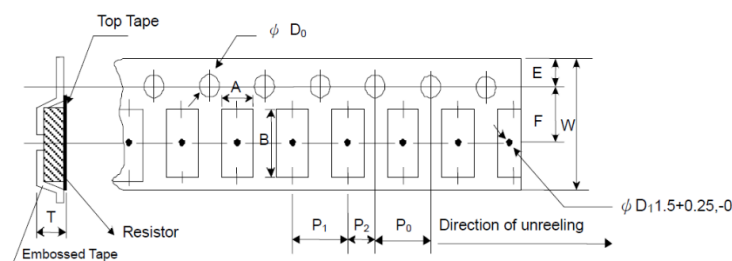
| Type/Code                      | Packaging/Quantity |       | A                              | B                                 | C                             | W                             | T                             | Unit         |
|--------------------------------|--------------------|-------|--------------------------------|-----------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------|
| RVCA0402                       | Paper              | 10000 | 7.028 ± 0.059<br>178.50 ± 1.50 | 2.362 +0.039/-0<br>60.00 +1.00/-0 | 0.512 ± 0.008<br>13.00 ± 0.20 | 0.354 ± 0.020<br>9.00 ± 0.50  | 0.492 ± 0.020<br>12.50 ± 0.50 | inches<br>mm |
| RVCA0603, RVCA0805<br>RVCA1206 | Paper              | 5000  | 7.028 ± 0.059<br>178.50 ± 1.50 | 2.362 +0.039/-0<br>60.00 +1.00/-0 | 0.512 ± 0.008<br>13.00 ± 0.20 | 0.354 ± 0.020<br>9.00 ± 0.50  | 0.492 ± 0.020<br>12.50 ± 0.50 | inches<br>mm |
| RVCA2010, RVCA2512             | Plastic            | 4000  | 7.028 ± 0.059<br>178.50 ± 1.50 | 2.362 +0.039/-0<br>60.00 +1.00/-0 | 0.512 ± 0.020<br>13.00 ± 0.50 | 0.512 ± 0.020<br>13.00 ± 0.50 | 0.512 ± 0.020<br>13.00 ± 0.50 | inches<br>mm |

### Packaging Specifications - Paper Tape



| Type/Code | A                            | B                            | W                            | E                                | F                            | Unit         |
|-----------|------------------------------|------------------------------|------------------------------|----------------------------------|------------------------------|--------------|
| RVCA0402  | 0.026 ± 0.004<br>0.65 ± 0.10 | 0.045 ± 0.004<br>1.15 ± 0.10 | 0.315 ± 0.008<br>8.00 ± 0.20 | 0.069 ± 0.004<br>1.75 ± 0.10     | 0.138 ± 0.002<br>3.50 ± 0.05 | inches<br>mm |
| RVCA0603  | 0.043 ± 0.004<br>1.10 ± 0.10 | 0.075 ± 0.004<br>1.90 ± 0.10 | 0.315 ± 0.008<br>8.00 ± 0.20 | 0.069 ± 0.004<br>1.75 ± 0.10     | 0.138 ± 0.002<br>3.50 ± 0.05 | inches<br>mm |
| RVCA0805  | 0.063 ± 0.004<br>1.60 ± 0.10 | 0.094 ± 0.008<br>2.40 ± 0.20 | 0.315 ± 0.008<br>8.00 ± 0.20 | 0.069 ± 0.004<br>1.75 ± 0.10     | 0.138 ± 0.002<br>3.50 ± 0.05 | inches<br>mm |
| RVCA1206  | 0.075 ± 0.004<br>1.90 ± 0.10 | 0.138 ± 0.008<br>3.50 ± 0.20 | 0.315 ± 0.008<br>8.00 ± 0.20 | 0.069 ± 0.004<br>1.75 ± 0.10     | 0.138 ± 0.002<br>3.50 ± 0.05 | inches<br>mm |
| Type/Code | P0                           | P1                           | P2                           | D0                               | T                            | Unit         |
| RVCA0402  | 0.157 ± 0.004<br>4.00 ± 0.10 | 0.079 ± 0.002<br>2.00 ± 0.05 | 0.079 ± 0.002<br>2.00 ± 0.05 | 0.059 +0.004/-0<br>1.50 +0.10/-0 | 0.018 ± 0.004<br>0.45 ± 0.10 | inches<br>mm |
| RVCA0603  | 0.157 ± 0.004<br>4.00 ± 0.10 | 0.157 ± 0.002<br>4.00 ± 0.05 | 0.079 ± 0.002<br>2.00 ± 0.05 | 0.059 +0.004/-0<br>1.50 +0.10/-0 | 0.028 ± 0.004<br>0.70 ± 0.10 | inches<br>mm |
| RVCA0805  | 0.157 ± 0.004<br>4.00 ± 0.10 | 0.157 ± 0.002<br>4.00 ± 0.05 | 0.079 ± 0.002<br>2.00 ± 0.05 | 0.059 +0.004/-0<br>1.50 +0.10/-0 | 0.033 ± 0.004<br>0.85 ± 0.10 | inches<br>mm |
| RVCA1206  | 0.157 ± 0.004<br>4.00 ± 0.10 | 0.157 ± 0.002<br>4.00 ± 0.05 | 0.079 ± 0.002<br>2.00 ± 0.05 | 0.059 +0.004/-0<br>1.50 +0.10/-0 | 0.033 ± 0.004<br>0.85 ± 0.10 | inches<br>mm |

### Packaging Specifications - Plastic Tape



| Type/Code | A                            | B                            | W                             | E                            | F                            | Unit         |
|-----------|------------------------------|------------------------------|-------------------------------|------------------------------|------------------------------|--------------|
| RVCA2010  | 0.110 ± 0.004<br>2.80 ± 0.10 | 0.213 ± 0.008<br>5.40 ± 0.20 | 0.472 ± 0.012<br>12.00 ± 0.30 | 0.069 ± 0.004<br>1.75 ± 0.10 | 0.217 ± 0.002<br>5.50 ± 0.05 | inches<br>mm |
| RVCA2512  | 0.138 ± 0.004<br>3.50 ± 0.10 | 0.264 ± 0.004<br>6.70 ± 0.10 | 0.472 ± 0.012<br>12.00 ± 0.30 | 0.069 ± 0.004<br>1.75 ± 0.10 | 0.217 ± 0.002<br>5.50 ± 0.05 | inches<br>mm |

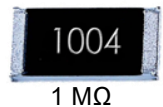
## Packaging Specifications - Plastic Tape (cont.)

| Type/Code | P0                           | P1                           | P2                           | D0                               | T                   | Unit         |
|-----------|------------------------------|------------------------------|------------------------------|----------------------------------|---------------------|--------------|
| RVCA2010  | 0.157 ± 0.004<br>4.00 ± 0.10 | 0.157 ± 0.004<br>4.00 ± 0.10 | 0.079 ± 0.002<br>2.00 ± 0.05 | 0.059 +0.004/-0<br>1.50 +0.10/-0 | 0.047 +0<br>1.20 +0 | inches<br>mm |
| RVCA2512  | 0.157 ± 0.004<br>4.00 ± 0.10 | 0.157 ± 0.004<br>4.00 ± 0.10 | 0.079 ± 0.002<br>2.00 ± 0.05 | 0.059 +0.004/-0<br>1.50 +0.10/-0 | 0.047 +0<br>1.20 +0 | inches<br>mm |

## Part Marking Instructions

## E96 and E24 Values for 0805-2512 (1% tolerances)

The nominal resistance is marked on the surface of the overcoating with the use of **four character markings**.



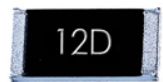
## E24 Values 0603-2512 (5% tolerance)

The nominal resistance is marked on the surface of the overcoating with the use of **three character markings**.



## E96 Values for 0603 (1% Marking)

A two character number is assigned to each standard R-Value (E96) as shown in the chart below. This is followed by one alpha character which is used as a multiplier. Each letter from "Y" - "F" represents a specific multiplier.



| Alpha Character = Multiplier |             | Alpha Character = Value    |
|------------------------------|-------------|----------------------------|
| Y = 0.1                      | C = 1000    | 01Y = 10.0 x 0.1 = 1Ω      |
| X = 1                        | D = 10000   | 01B = 10.0 x 100 = 1KΩ     |
| A = 10                       | E = 100000  | 25C = 17.8 x 1000 = 17.8KΩ |
| B = 100                      | F = 1000000 | 01F = 10.0 x 100000 = 10MΩ |

## E96

| #  | R-Value | #  | R-Value | #  | R-Value | #  | R-Value | #  | R-Value | #  | R-Value |
|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|
| 01 | 10.0    | 17 | 14.7    | 33 | 21.5    | 49 | 31.6    | 65 | 46.4    | 81 | 68.1    |
| 02 | 10.2    | 18 | 15.0    | 34 | 22.1    | 50 | 32.4    | 66 | 47.5    | 82 | 69.8    |
| 03 | 10.5    | 19 | 15.4    | 35 | 22.6    | 51 | 33.2    | 67 | 48.7    | 83 | 71.5    |
| 04 | 10.7    | 20 | 15.8    | 36 | 23.2    | 52 | 34.0    | 68 | 49.9    | 84 | 73.2    |
| 05 | 11.0    | 21 | 16.2    | 37 | 23.7    | 53 | 34.8    | 69 | 51.1    | 85 | 75.0    |
| 06 | 11.3    | 22 | 16.5    | 38 | 24.3    | 54 | 35.7    | 70 | 52.3    | 86 | 76.8    |
| 07 | 11.5    | 23 | 16.9    | 39 | 24.9    | 55 | 36.5    | 71 | 53.6    | 87 | 78.7    |
| 08 | 11.8    | 24 | 17.4    | 40 | 25.5    | 56 | 37.4    | 72 | 54.9    | 88 | 80.6    |
| 09 | 12.1    | 25 | 17.8    | 41 | 26.1    | 57 | 38.3    | 73 | 56.2    | 89 | 82.5    |
| 10 | 12.4    | 26 | 18.2    | 42 | 26.7    | 58 | 39.2    | 74 | 57.6    | 90 | 84.5    |
| 11 | 12.7    | 27 | 18.7    | 43 | 27.4    | 59 | 40.2    | 75 | 59.0    | 91 | 86.6    |
| 12 | 13.0    | 28 | 19.1    | 44 | 28.0    | 60 | 41.2    | 76 | 60.4    | 92 | 88.7    |
| 13 | 13.3    | 29 | 19.6    | 45 | 28.7    | 61 | 42.2    | 77 | 61.9    | 93 | 90.9    |
| 14 | 13.7    | 30 | 20.0    | 46 | 29.4    | 62 | 43.2    | 78 | 63.4    | 94 | 93.1    |
| 15 | 14.0    | 31 | 20.5    | 47 | 30.1    | 63 | 44.2    | 79 | 64.9    | 95 | 95.3    |
| 16 | 14.3    | 32 | 21.0    | 48 | 30.9    | 64 | 45.3    | 80 | 66.5    | 96 | 97.6    |

Note: 0402 resistors are not marked.

## RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 3). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

| RoHS Compliance Status  |                                                        |                            |                                |                                   |                                                    |                                       |
|-------------------------|--------------------------------------------------------|----------------------------|--------------------------------|-----------------------------------|----------------------------------------------------|---------------------------------------|
| Standard Product Series | Description                                            | Package / Termination Type | Standard Series RoHS Compliant | Lead-Free Termination Composition | Lead-Free Mfg. Effective Date (Std Product Series) | Lead-Free Effective Date Code (YY/WW) |
| RVCA                    | Automotive Grade High Voltage Thick Film Chip Resistor | SMD                        | YES <sup>(1)</sup>             | 100% Matte Sn over Ni             | Always                                             | Always                                |

Note (1): RoHS compliant by means of exemption 7c-I.

## “Conflict Metals” Commitment

We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the “conflict region” of the eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

## Compliance to “REACH”

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, "The Registration, Evaluation, Authorization and Restriction of Chemicals", otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

## Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

## How to Order

|                |                                                        |      |           |     |           |      |              |                  |                  |                                                                                                                         |   |   |   |
|----------------|--------------------------------------------------------|------|-----------|-----|-----------|------|--------------|------------------|------------------|-------------------------------------------------------------------------------------------------------------------------|---|---|---|
| R              | V                                                      | C    | A         | 0   | 6         | 0    | 3            | F                | T                | 1                                                                                                                       | 0 | 0 | K |
| Product Series |                                                        | Size | Tolerance |     | Packaging |      |              |                  | Resistance Value |                                                                                                                         |   |   |   |
| Code           | Description                                            | Code | Code      | Tol | Value     | Code | Description  | Size             | Quantity         | Four characters with the multiplier used as the decimal holder.<br>100 Kohm = 100K<br>5.6 Mohm = 5M60<br>22 Mohm = 22M0 |   |   |   |
| RVCA           | Automotive Grade High Voltage Thick Film Chip Resistor | 0402 | F         | 1%  | E24, E96  | T    | Paper Tape   | 0402             | 10000            |                                                                                                                         |   |   |   |
|                |                                                        | 0603 | J         | 5%  | E24       |      | Plastic Tape | 0603, 0805, 1206 | 5000             |                                                                                                                         |   |   |   |
|                |                                                        | 0805 |           |     |           |      |              | 2010, 2512       | 4000             |                                                                                                                         |   |   |   |
|                |                                                        | 1206 |           |     |           |      |              |                  |                  |                                                                                                                         |   |   |   |
|                |                                                        |      | 2010      |     |           |      |              |                  |                  |                                                                                                                         |   |   |   |
|                |                                                        | 2512 |           |     |           |      |              |                  |                  |                                                                                                                         |   |   |   |