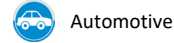


RWN Series Datasheet

SMD | Power Resistor Non - Inductive | Flat Wire
Epoxy Encapsulation

APPLICATIONS



Automotive



Consumer & Electronics

FEATURES

Suitable for automatic pick and place

All welded construction

Small package size

Molded encapsulation

Non – inductive style

RoHs & REACH Compliant

ORDERING CODE - Example

New SAP Part Nr.:

| | | | | | | | |
|------------|------------|--------------------|------------------|-----------------|-------------------------------|------------|---------------|
| RWN | 502 | J | K | - | 13- | R01 | AA |
| Serie | Size | Tol. | Pack-Code | TCR | Package type | R Value | Special |
| | 502 = 5020 | F = ±1% J = ±5% | K = Blister Tape | - Base on spec. | 13- = 13 inch (Reel diameter) | | AA = Standard |

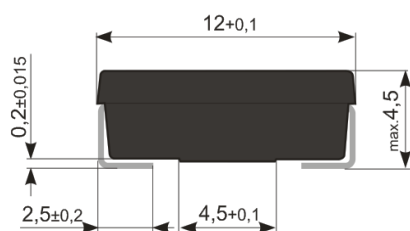
Historical VTM Part Nr.:

| | | | | | | |
|------------|-------------|----------|-----------------------|----------|------------|------------|
| RWN | 5020 | J | K | - | 13 | R01 |
| Type | Size | Tol. | K = Blister tape reel | TC | Reel diam. | R Value |

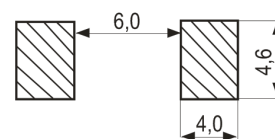
ELECTRICAL SPECIFICATIONS

| | | | |
|-----------------------------------------------------------------|-----------------|--------------------------------------|----------------------------------------------------|
| Type | | | RWN502 |
| Historical Part Number | | | RWN5020 |
| Nominal Power Rating | P ₂₅ | [W] | 2,2 |
| | P ₇₀ | | 1,6 |
| Resistance Range | | [Ω] | R002 ... R05 (Other values upon request) |
| E-Series (preferred) | | | R002, R003, R005 ≥ R01 : E12 (Other upon request) |
| Tolerances | | ±[%] | F = 1% ; J = 5% |
| Temperature Coefficient | | ±[10 ⁻⁶ K ⁻¹] | Depends on the value, please check the table below |
| Working Temperature Range | | [°C] | -55 ... +200 |
| Thermal Resistance | | [KW ⁻¹] | 100 |
| Max. Working Voltage | | [V] _{RMS} | $\sqrt{P_{70} \times R}$ |
| Dielectric Withstanding Voltage IEC115-1 clause 4.7 (1[min]) | | [V] _{RMS} | 1000 |
| Insulation Resistance IEC115-1 clause 4.6 | | [MΩ] | >1000 |

DIMENSIONS [mm]



SOLDER PAD

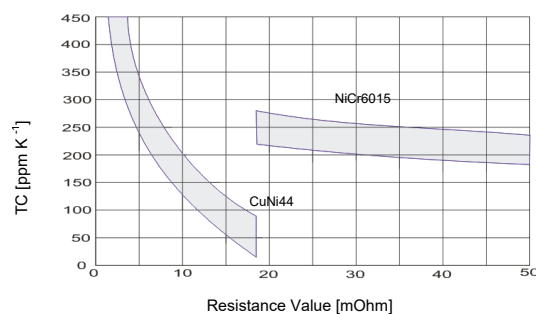


RWN Series Datasheet

PERFORMANCE DATA

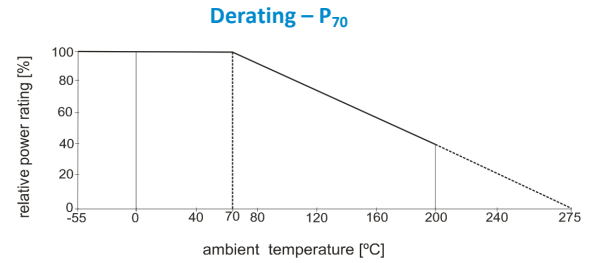
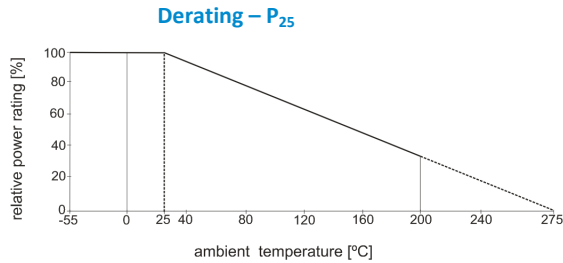
| | | | |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|
| Type | | RWN502 | |
| Historical Part Number | | RWN5020 | |
| Derating Linear | [°C] | 70...200 (0W) | |
| Climatic Category | | 55/175/56 | |
| Endurance <i>IEC60115-1 clause 4.25</i> (P_{70} @ 70[°C], 1000[h]) | ±[%] | 1,0 | |
| Damp Heat, Steady State <i>IEC60115-1 clause 4.24</i> (40[°C], 93[% r.h.], 56[d]) | ±[%] | 0,25 | |
| Climatic Sequence <i>IEC60115-1 clause 4.23</i> | ±[%] | 1,0 | |
| Resistance to Soldering Heat <i>IEC60115-1 clause 4.18</i> (260 ^{±5} [°C], 3,5 ^{±1} [s]) | ±[%] | 0,25 | |
| Short Time Overload <i>IEC60115-1 clause 4.13</i> | ±[%] | 1,0 | |
| Temperature Shock <i>IEC60115-1 clause 4.19</i> | ±[%] | 0,25 | |
| Board-bending Test | | No interruption | |
| Single Pulse | i_{max} | [A] | 50 |
| | $E_{i,max}$ | [mWs] | 625 |
| | $T_{imp,max}$ | [ms] | 5 |
| Periodic Pulse Load | i_{max} | [A] | 30 (0R002 ...0R018) 40 (0R022 ...0R05) |
| | $E_{i, per, max}$ | [mWs] | 225 |
| | $T_{imp, max}$ | [ms] | 5 |
| | t_{pause} | [ms] | 100 |
| | Solderability <i>IEC60068-2-20</i> (245 ^{±5} [°C] 3 ^{±0,5} [s]) | | Solder bath method (> 95% coverage) |
| Marking <i>IEC60062</i> | | Printed in clear (Type – Value – Tolerance) | |

TEMPERATURE COEFFICIENT

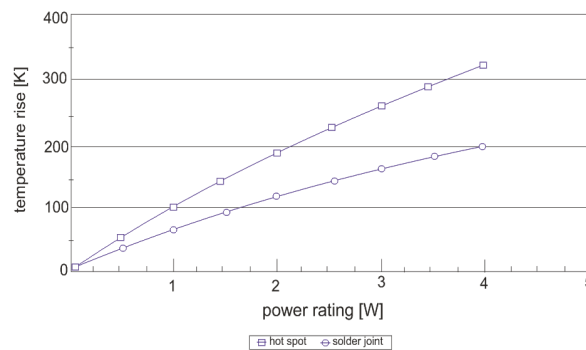


RWN Series Datasheet

PERFORMANCE GRAPHS

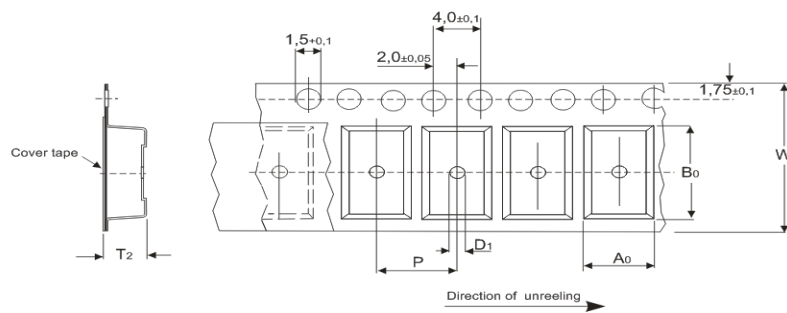


Temperature Rise

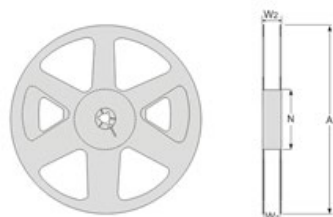


PACKAGING

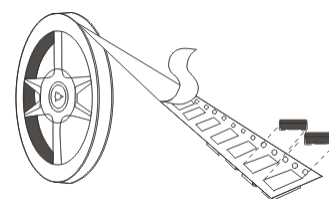
The standard packaging for RWN, dimensions below.



| Type | A0 | B0 | W | D1 | P | T2 |
|--------|-----|------|----|-----|---|----|
| RWN502 | 5,4 | 12,4 | 24 | 1,5 | 8 | 5 |



| Type | W1 | W2 | N | A |
|--------|------|------|----|-----|
| RWN502 | 25,4 | 29,5 | 90 | 330 |



| Type | Packaging | Pieces |
|--------|-----------------------|--------|
| RWN502 | 13(inch) Blister tape | 1500 |