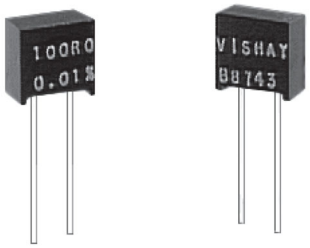
Bulk Metal® Foil Technology Industrial Miniature Precision Resistor with TCR of ± 4 ppm/°C and Tolerance to ± 0.01 %



Any value at any tolerance available with resistance range

The VRM style is a miniaturized version of the now famous S102C. It is made with a Bulk Metal® Foil element so it retains all of the inherent performance of foil resistors. It does not, however, have the value range, power rating, TCR or lead spacing of the S102C. It is a size for size replacement for certain wirewounds and finds application in situations where size constraints dictate the use of this miniature precision resistor.

Our Application Engineering Department is available to advise and to make recommendations. For non-standard technical requirements and special applications, please contact us.

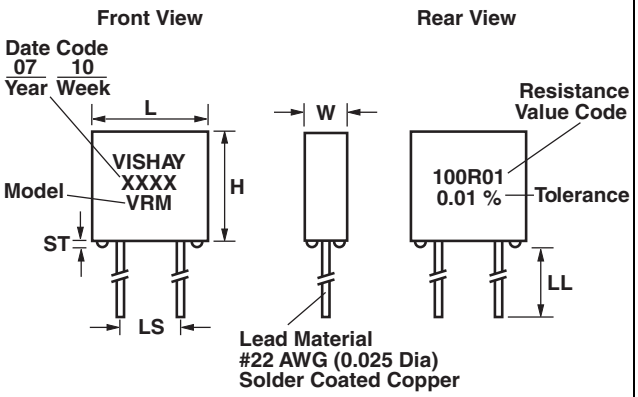
FEATURES

Pb-free Available

RoHS* COMPLIANT

- Temperature Coefficient of Resistance:
  ± 4 ppm/°C (0 °C to + 60 °C);
  ± 8 ppm/°C (- 55 °C to + 125 °C, 25 °C Ref.)
- Resistance Range: 5 Ω to 50 kΩ
- Tolerance: to ± 0.01 %
- Power Rating: 0.25 W at + 70 °C; 0.125 W at + 125 °C
- Load Life Stability: ± 0.05 % Maximum ΔR at + 70 °C at Rated Power for 2000 hours
- Non Inductive: < 0.08 µH
- Thermal EMF: < 0.1 µV/°C
- Long Term Stability: ± 0.0025 % (25 ppm) per year under low power and room temperature conditions
- Voltage Coefficient: < 0.1 ppm/V
- Maximum Working Voltage: 250 V
- Terminal Finishes Available: Lead (Pb)-free
  Tin/Lead Alloy
- Any value available within resistance range (e.g. 1K234)
- Prototype samples available from 48 hours. For more information, please contact foil@vishaypg.com
- For better performances, please see S-Series datasheet

FIGURE 1 - IMPRINTING AND DIMENSIONS



DIMENSIONS	INCHES	mm
L:	0.250 ± 0.010	6.35 ± 0.25
H:	0.250 ± 0.010	6.35 ± 0.25
W:	0.125 ± 0.010	3.18 ± 0.25
ST:	0.020 ± 0.010	0.51 ± 0.25
LL:	0.750 Minimum	19.05 Minimum
LS:	0.125 ± 0.005	3.18 ± 0.13

FIGURE 2 - POWER DERATING CURVE

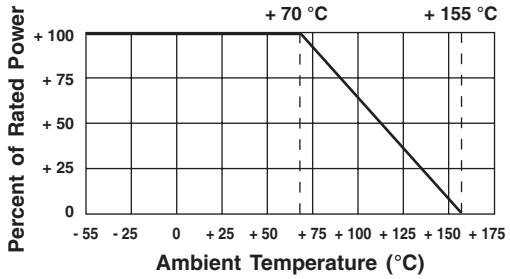


TABLE 1 - RESISTANCE VALUES VS TOLERANCE

5 Ω to 50 Ω	50 Ω to 50 kΩ
± 0.1 % ± 0.25 % ± 0.5 % ± 1.0 %	± 0.01 % ± 0.02 % ± 0.05 % ± 0.1 % ± 0.25 % ± 0.5 % ± 1.0 %

* Pb containing terminations are not RoHS compliant, exemptions may apply

FIGURE 3 - TEMPERATURE COEFFICIENT

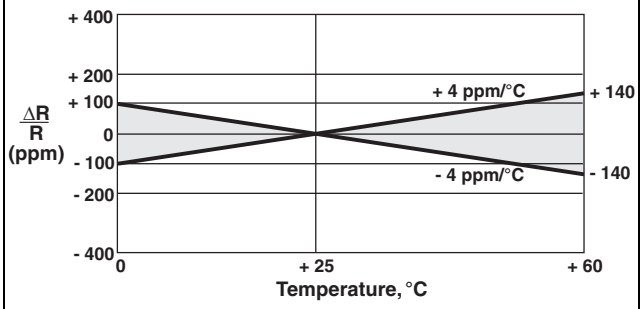
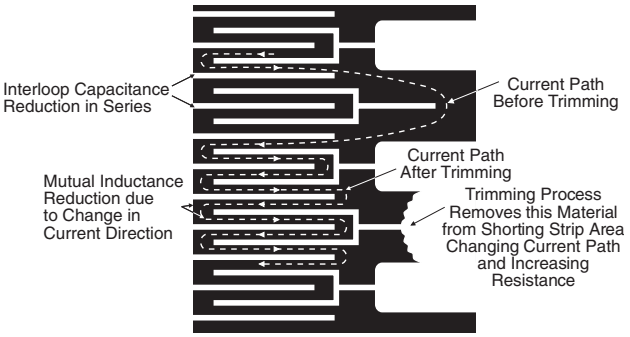


FIGURE 4 - TRIMMING TO VALUES
(Conceptual Illustration)



Note: Foil shown in black, etched spaces in white

TABLE 2 - GLOBAL PART NUMBER INFORMATION

NEW GLOBAL PART NUMBER: Y007345K4540Q9L (preferred part number format)

DENOTES PRECISION	VALUE	AER*
Y	**R** = Ω **K** = kΩ	**0** = Standard **9** = Lead (Pb)-free **1 - 999** = Custom

Y	0	0	7	3	4	5	K	4	5	4	0	Q	9	L

PRODUCT CODE	RESISTANCE TOLERANCE	PACKAGING
0073 = VRM	**T** = ± 0.01 % **Q** = ± 0.02 % **A** = ± 0.05 % **B** = ± 0.1 % **C** = ± 0.25 % **D** = ± 0.5 % **F** = ± 1.0 %	**L** = Bulk Pack

FOR EXAMPLE: ABOVE GLOBAL ORDER Y0073 45K4540 Q 9 L:

TYPE: VRM
VALUE: 45.454 kΩ
ABSOLUTE TOLERANCE: ± 0.02 %
TERMINATION: Lead (Pb)-free
PACKAGING: Bulk Pack

HISTORICAL PART NUMBER EXAMPLE: VRMT 45K454 Q B (will continue to be used)

VRM	T	45K454	Q	B
MODEL	TERMINATION	OHMIC VALUE	RESISTANCE TOLERANCE	PACKAGING
VRM	**T** = Lead (Pb)-free None = Tin/Lead alloy	45.454 kΩ	**T** = ± 0.01 % **Q** = ± 0.02 % **A** = ± 0.05 % **B** = ± 0.1 % **C** = ± 0.25 % **D** = ± 0.5 % **F** = ± 1.0 %	**B** = Bulk Pack

Note

* For non-standard requests, please contact Application Engineering.

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