

RESISTORS

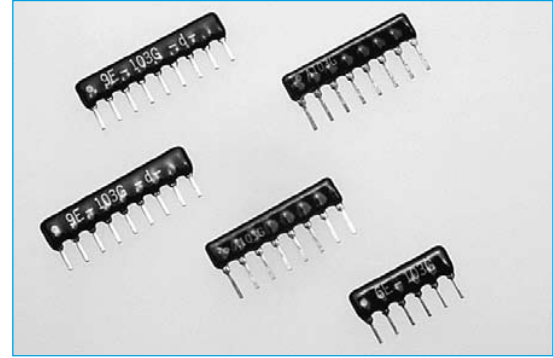
- Low-profile
- Epoxy dipped
- 5 to 13-pin

The Dubilier range of SIL networks features 2% accuracy in a low-cost package.

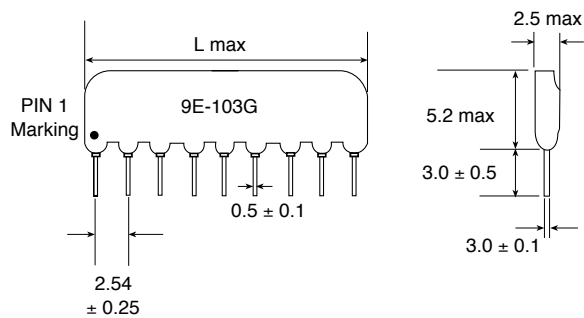
The low-profile epoxy package allows the device to be used in locations where moulded parts do not fit.

Isolated and common-terminal designs are available, allowing the simple, reliable insertion of up to 12 resistors at once.

RESISTOR NETWORK SIL



OUTLINE DRAWING



| No of Pins | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|------------|------|------|------|------|------|------|------|------|------|
| L max | 12.7 | 15.3 | 17.8 | 20.4 | 22.9 | 25.4 | 28.0 | 30.5 | 33.1 |

RANGE & TOLERANCES

| Parameter | Performance | Limits |
|--------------------------|-----------------------------|-----------------------------|
| Power Rating per Element | 0.125W | @ 70°C |
| Temperature Range | -55° to +125°C | Derating linearly from 70°C |
| Resistance Range | 33Ω to 1MΩ | E - 24 series |
| Resistance Tolerance | ± 2% (G) | |
| Temperature Coefficient | ± 100 ppm/°C ± 250ppm/°C | 50Ω ≥ 2.2MΩ <50Ω - 2.2MΩ |
| Max Working Voltage | 100V | |
| Max Overload Voltage | 200V | |

ORDERING INFORMATION

| 9 | E | 103 | G |
|---------|----------------------------|---|-----------|
| N° Pins | Type | Value | Tolerance |
| 5 to 13 | M = Isolated E = Common | 3 digit code : Last digit is decade multiplier. First two digits are first digits of value. | 2% |

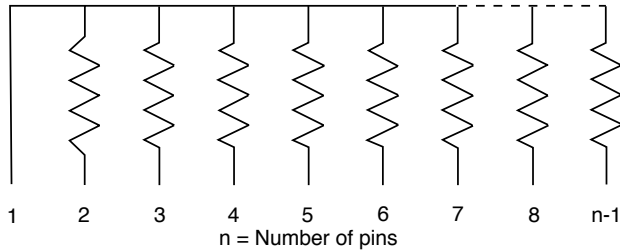
SPECIFICATION

| | |
|----------------------------|--|
| Short Term Overload | $\Delta R/R \pm (1\% + 0.05\Omega)$ After application of 21/2 x rated voltage, or the maximum overload voltage, whichever smaller, for a period of 5 secs. Resistance change to be within specification, with no evidence of arcing, burning or charring. |
| Vibration | $\Delta R/R \pm (0.5\% + 0.5\Omega)$ Resistors are to be subjected to vibration of amplitude 0.8mm for 2 hours in each of three mutually perpendicular directions. The vibration frequency shall be swept from 10 to 55 to 10Hz in 1 minute. Resistance change to be within specification with no evidence of damage. |
| Dielectric Strength | Components shall withstand twice their rated voltage for 1 minute applied between termination and substrate. No evidence of arcing, burning or charring. |
| Solderability | $\Delta R/R \pm (1\% + 0.05\Omega)$ After dipping at $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 10 seconds, resistance change to be within specification, with no evidence of arcing, burning or charring. Terminations shall maintain a minimum of 75% coverage following the procedures of MIL-STD-202E. |
| Load Life | $\Delta R/R \pm (2\% + 0.05\Omega)$ After 1000 hours application of the rated voltage with a duty cycle of 11/2 hours ON and 1/2 hour OFF, at 70°C . Resistance change to be within specification, with no evidence of arcing, burning or charring. |
| Moisture Load | $\Delta R/R \pm (2\% + 0.05\Omega)$ After 1000 hours application of the rated voltage with a duty cycle of 11/2 hours ON and 1/2 hour OFF, at 40°C and 90-95% RH. Resistance change to be within specification, with no evidence of arcing, burning or charring. |
| Voltage Coefficient | $\Delta R/R < 100\text{ppm/V}$ |
| Flammability | Product is conformally coated with epoxy resin conforming to UL94V-0. |

SECTION 4

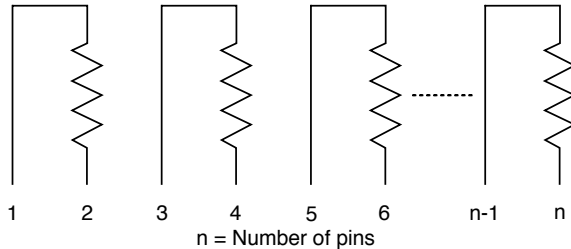
SIL PIN-OUTS

Common (E)



Common parts are characterised by having a number of resistive elements, all of the same nominal value. All elements are connected to pin 1.

Isolated (M)



Isolated parts are characterised by having a number of resistive elements, all of the same nominal value. All elements are independent.