



# State of the Art, Inc.

2470 Fox Hill Road, State College, PA 16803-1797 USA  
tel: (814)355-8004 fax: (814)355-2711 www.resistor.com

## REACH<sup>1</sup>

State of the Art, Inc. produces various resistor products classified as articles per this legislation. Most of our products do not contain any of the substances of very high concern (SVHC) as listed on the Candidate List 169 (last updated on 20 June 2016) maintained by the European Chemicals Agency (ECHA). A link to the Candidate List is provided for your convenience. <http://echa.europa.eu/web/guest/candidate-list-table>

Our precision thin film products and most of our semi-precision thick film products do not contain any SVHC materials. Several thick film resistor products contain a SVHC (cadmium or cadmium oxide) material. Cadmium oxide is found in several thick film conductor materials used in the construction of high power resistors and products with platinum/gold finish for epoxy bond applications. We plan to replace the current materials with materials that do not contain cadmium oxide.

State of the Art, Inc. (SOTA) products may contain substances of very high concern and may not be REACH compliant. Several codes in our part number indicate the product's REACH status.

Examples of our part number formats are shown below.

*Semi-precision thick film chip resistors:* S1206CPX1000F10, S1206CPY102G30

*Precision thin film chip resistors:* S1206CA1000FEB, S0303AS1000FKW

*Zero ohm chip resistors (jumpers):* S0402CPX000

*Chip attenuators:* S0303AC10B0B, S0706CW6B0B, S1512CT3B0BN7

*MIL-PRF-55342 chip resistors:* M55342K06B100BR, D55342K07W100DT

*MIL-PRF-32159 zero ohm chip resistors:* M32159C12M, M32159B06T.

*MIL-PRF-914 surface mount resistor networks:* M914D04K1002FMM

*Surface mount resistor networks:* SJCB20L1001FA, SD1516K1001FB.

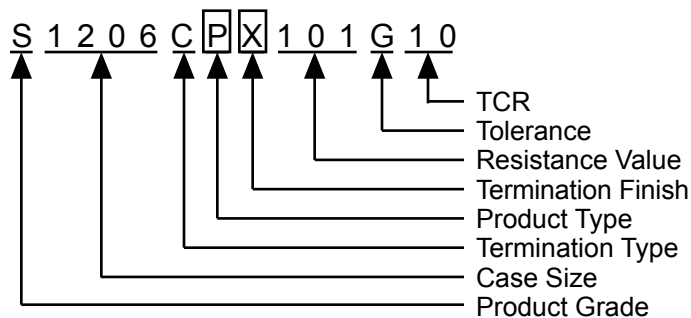
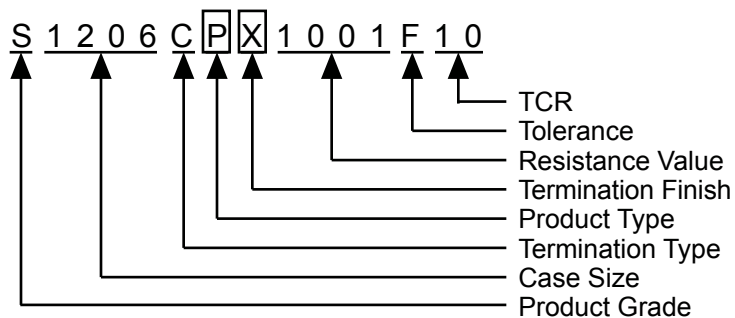
The part number codes that determine RoHS status are identified for each product type and part number format.

---

<sup>1</sup> Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

### Semi-Precision Thick Film Chip Resistors

The REACH status of our products is determined by the product and termination finish codes in our part number. The codes that can indicate the presence of SVHC are boxed in these semi-precision thick film resistor part numbers. The boxed P is product type code (B and R contain a SVHC). The boxed X is the termination finish code (P contains a SVHC). All other part numbers do not contain any of the REACH SVHC materials.



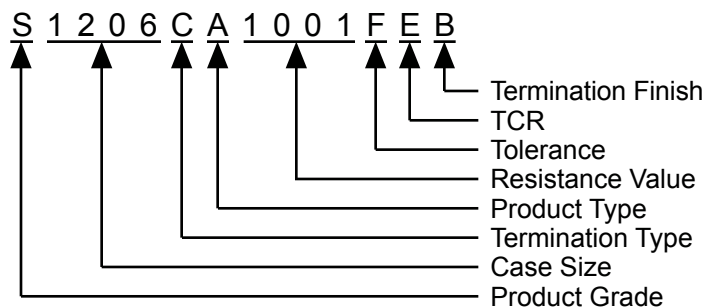
Product codes B and R (high power resistors) contain cadmium or cadmium oxide and do not comply with REACH.

Termination finish code P (platinum gold) contains cadmium or cadmium oxide and does not comply with REACH.

All other part numbers do not contain any of the REACH SVHC materials.

### Precision Thin Film Chip Resistors

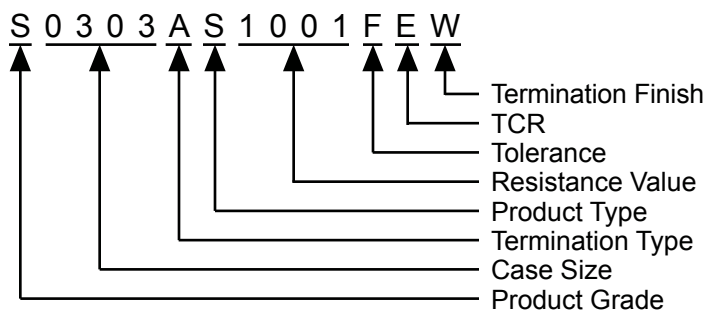
State of the Art, Inc. (SOTA) precision thin film surface mount alumina resistors do not contain any of the SVHC materials. Precision thin film resistor products are readily identified by their part number format.



All precision thin film resistors do not contain any of the REACH SVHC materials.

### Precision Thin Film Silicon Resistors

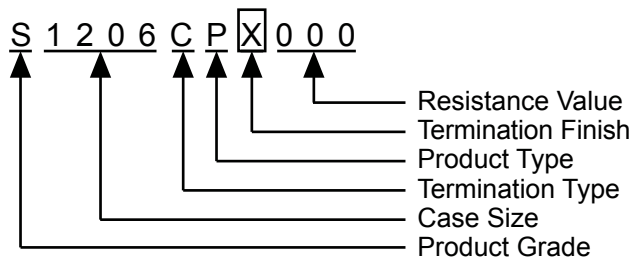
State of the Art, Inc. (SOTA) precision thin film silicon resistors do not contain any of the SVHC materials. Silicon resistors are identified by the product code S in the thin film resistor part number.



All precision thin film resistors on silicon do not contain any of the REACH SVHC materials.

### Zero Ohm Chip Resistors (Jumpers)

Zero ohm chip resistors are made using thick film materials and may contain cadmium. REACH status is determined by the termination finish code in the part number.

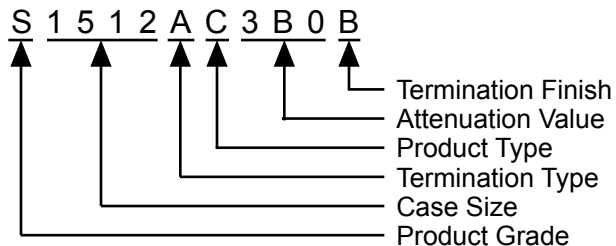


Termination finish code P (platinum gold) contains cadmium or cadmium oxide and does not comply with REACH.

All other part numbers do not contain any of the REACH SVHC materials.

### Fixed Attenuators

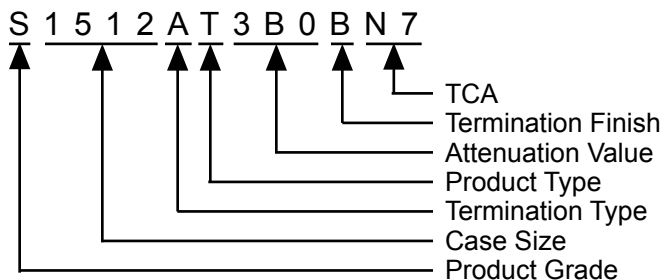
State of the Art, Inc. (SOTA) fixed attenuators do not contain any of the SVHC materials and are identified by product code C in the attenuator part number format:



All fixed attenuator products do not contain any of the REACH SVHC materials.

### Temperature Variable Attenuators

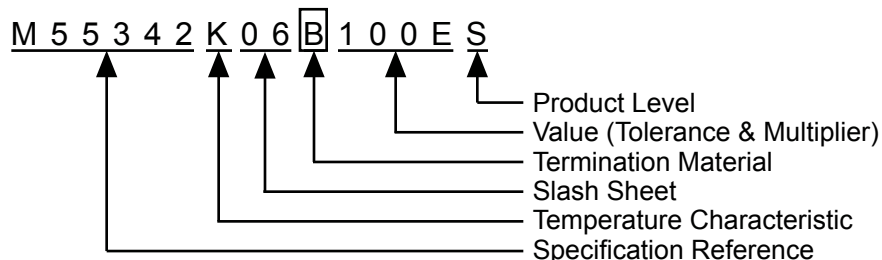
State of the Art, Inc. (SOTA) temperature variable attenuators do not contain any of the SVHC materials and are identified by product code T in the attenuator part number format:



All temperature variable attenuator products do not contain any of the REACH SVHC materials.

### MIL-PRF-55342 Resistors

REACH compliance of MIL-PRF-55342 is determined by the termination material code in the MIL-PRF-55342 part number. The termination material code location is boxed in the part number example.

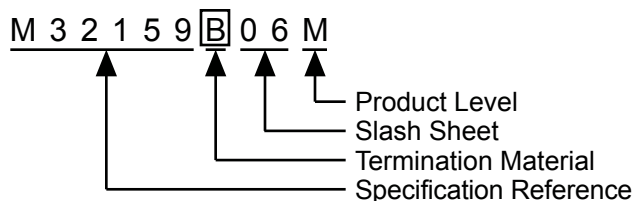


Termination Material code U (platinum gold) contains cadmium or cadmium oxide and does not comply with REACH.

All other part numbers do not contain any of the REACH SVHC materials.

### MIL-PRF-32159 Zero Ohm Jumper Resistors

REACH compliance of MIL-PRF-55342 is determined by the termination material code in the MIL-PRF-55342 part number. The termination material code location is boxed in the part number example.

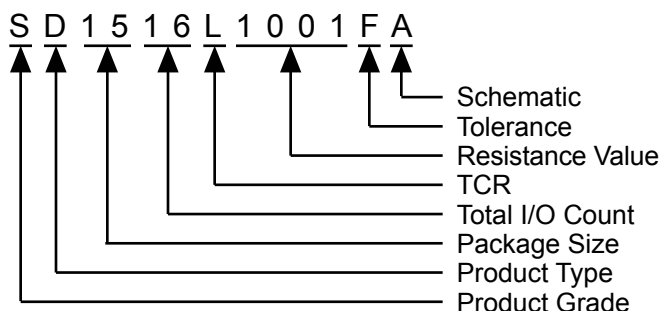
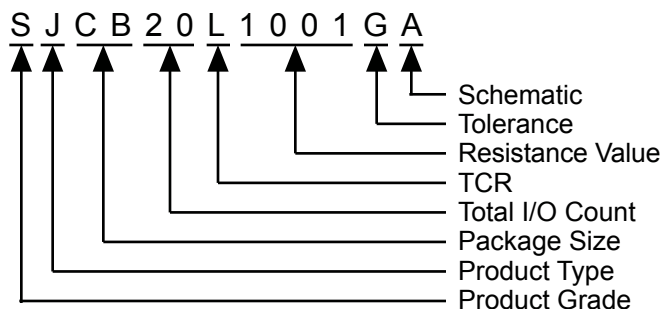


Termination Material code U (platinum gold) contains cadmium or cadmium oxide and does not comply with REACH.

All other part numbers do not contain any of the REACH SVHC materials.

### Surface Mount Thick Film Resistor Networks

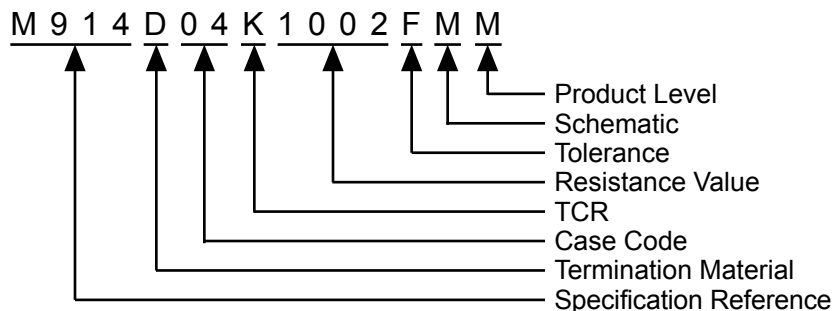
State of the Art, Inc. (SOTA) thick film surface mount resistor networks do not contain any of the SVHC materials. Thick film surface mount resistor networks are readily identified by their part number format.



All surface mount resistor network products do not contain any of the REACH SVHC materials.

### MIL-PRF-914 Surface Mount Resistor Networks

State of the Art, Inc. (SOTA) MIL-PRF-914 thick film surface mount resistor networks do not contain any of the SVHC materials. These MIL-PRF-914 surface mount resistor networks are readily identified by their part number format.



All MIL-PRF-914 surface mount resistor network products do not contain any of the REACH SVHC materials.