



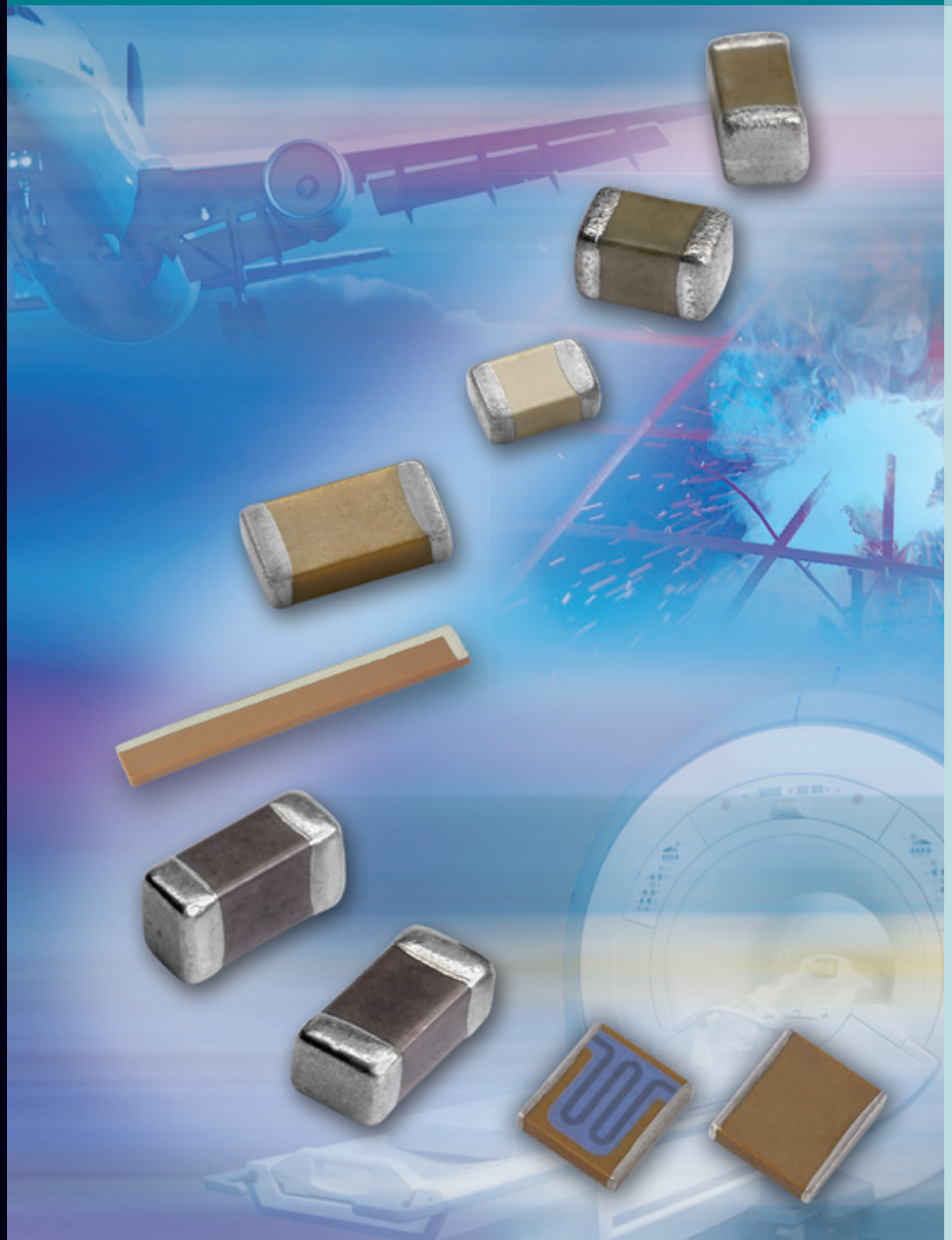
VISHAY INTERTECHNOLOGY, INC.

MULTILAYER CERAMIC CHIP CAPACITORS

Road Map

CAPACITORS

PRODUCT OVERVIEW



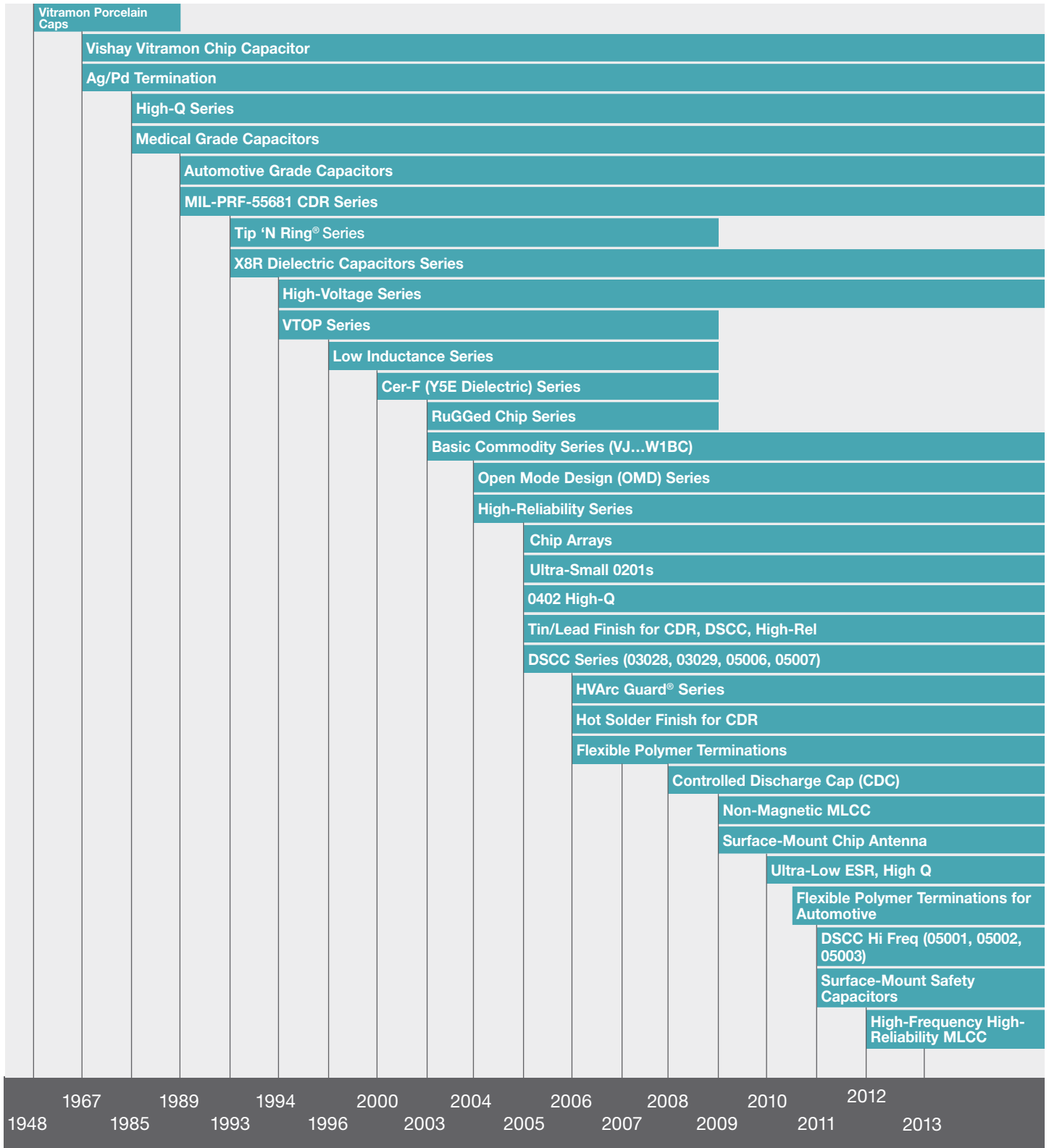
Surface-Mount Products

- **Vishay Vitramon Chip Capacitor** – VJ series surface-mount product, a reliable replacement for leaded capacitors
- **High-Q Series** – C0G (NP0) ultra-stable, high-frequency capacitors
- **Medical Grade Capacitors** – For implantable cardiovascular control applications
- **Automotive Grade Capacitors** – Qualified to AEC-Q200 guidelines for reliable automotive electronics
- **MIL-PRF-55681** – Complies with Department of Defense specification requirements for CDR military grade series
- **High-Voltage Series** – For application voltages above 200 V
- **X8R Dielectric** – Stable capacitance with reliable performance up to + 150 °C
- **Tip ‘N Ring® Series** – Replaces high-voltage leaded film capacitors in telecommunications line filtering
- **VTOP Series** – Low-profile controlled thickness to less than 0.026" [0.66 mm]
- **Low Inductance Series** – Typically half the inductance of standard products
- **Cassette Packaging** – Bulk case package increases pick and place productivity, reduces storage area and packaging materials
- **Cer-F Series** – An alternative to film capacitors with stable temperature coefficient of capacitance
- **RuGGed Chip Series** – Advanced X7R dielectric, low power consumption, high voltage breakdown compared to standard designs, and excellent thermal shock performance
- **Open Mode Design Capacitors (OMD-Cap)** – Reduces risk of shorts and low insulation resistance from capacitor cracks due to board flex, with high voltage breakdown compared to standard designs
- **High-Reliability Series** – A broad product range manufactured with a combination of design, materials, and tight process controls to achieve high field reliability
- **Tin/Lead (Sn/Pb) Termination Finish for CDR, DSCC, High-Reliability Series** – Base metallization 100 % tin plate barrier with tin/lead plate matte finish with a minimum 4 % lead
- **DSCC Part Numbers** – 03029 (0402 case size), 03028 (0603 case size), 05006 (0805 case size), 05007 (1206 case size)
- **HVArc Guard® Capacitor Series** – Higher capacitance, surface-mountable, high-voltage, multilayer ceramic capacitors designed to prevent surface arc-over
- **CDR Solder Coat Termination** – Base metallization-barrier metal-solder-coated tin/lead alloy (Sn/Pb), with a minimum of 4 % percent lead. Solder has a melting point + 200 °C or less. Solder coat thickness is a minimum of 60 micro-inches
- **Flexible Polymer Terminations** – Enhance the robustness of the terminations to resist board flexure failures
- **VJ...W1BC** – Basic commodity series with base metal electrode (BME) for X7R/X5R/Y5V and noble metal electrodes (NME) for NP0 dielectric
- **Chip Arrays** – Chip arrays for space-constrained applications and filtering in data communication lines. Four capacitors in one package, built on NP0, X7R or Y5V dielectric
- **Ultra-Small 0201** – Ultra-small series - Built with NP0, X5R, X7R and Y5V dielectric for miniaturization in portable applications
- **0402 High-Q** – Excellent Q-factor and low ESR enable miniaturization in wireless data communication applications
- **Surface-Mount Chip Antenna** – With ultra-small outline, omni-directional, linear polarization and complete UHF band coverage (470 MHz to 860 MHz) up to 1.1 GHz for mobile devices

Hybrid Products

- **Silver/Palladium (Ag/Pd) Terminations** – Used for conductive epoxy assembly

Surface-Mount Products



SEMICONDUCTORS:

Rectifiers • High-Power Diodes and Thyristors • Small-Signal Diodes • Zener and Suppressor Diodes
• FETs • Optoelectronics • ICs • Modules

PASSIVE COMPONENTS:

Resistive Products • Magnetics • Capacitors



One of the World's Largest Manufacturers of
Discrete Semiconductors and Passive Components

WORLDWIDE SALES CONTACTS

THE AMERICAS

UNITED STATES

VISHAY AMERICAS
ONE GREENWICH PLACE
SHELTON, CT 06484
UNITED STATES
PH: +1-402-563-6866
FAX: +1-402-563-6296

ASIA

SINGAPORE

VISHAY INTERTECHNOLOGY ASIA PTE LTD.
37A TAMPINES STREET 92 #07-00
SINGAPORE 528886
PH: +65-6788-6668
FAX: +65-6788-0988

P.R. CHINA

VISHAY CHINA CO., LTD.
15D, SUN TONG INFOPORT PLAZA
55 HUAI HAI WEST ROAD
SHANGHAI 200030
P.R. CHINA
PH: +86-21-5258 5000
FAX: +86-21-5258 7979

JAPAN

VISHAY JAPAN CO., LTD.
SHIBUYA PRESTIGE BLDG. 4F
3-12-22, SHIBUYA
SHIBUYA-KU
TOKYO 150-0002
JAPAN
PH: +81-3-5466-7150
FAX: +81-3-5466-7160

EUROPE

GERMANY

VISHAY ELECTRONIC GMBH
GEHEIMRAT-ROSENTHAL-STR. 100
95100 SELB
GERMANY
PH: +49-9287-71-0
FAX: +49-9287-70435

FRANCE

VISHAY S.A.
199, BLVD DE LA MADELEINE
06003 NICE, CEDEX 1
FRANCE
PH: +33-4-9337-2727
FAX: +33-4-9337-2726

UNITED KINGDOM

VISHAY LTD.
SUITE 6C, TOWER HOUSE
ST. CATHERINE'S COURT
SUNDERLAND ENTERPRISE PARK
SUNDERLAND SR5 3XJ
UNITED KINGDOM
PH: +44-191-516-8584
FAX: +44-191-549-9556

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