



YAGEO GROUP

YAGEO GROUP
BUILT INTO TOMORROW

V1.0

YAGEO GROUP
YAGEO

YAGEO GROUP
KEMET








YAGEO GROUP
PULSE

Content

Chip Resistors	04	Sensors & Actuators	12
Circuit Protection Components	05	Magnetics	13
Through Hole Resistors	06	Specialized Power	14 – 15
MLCC Multilayer Ceramic Capacitors	07	Wired Communications	16
Ceramic Capacitors	08	Wireless Components	17
Polymer / Tantalum / SuperCapacitors	09	Standard Power	18
Film Capacitors	10	Pt RTD Sensors	19
Aluminum Electrolytic Capacitors	11		

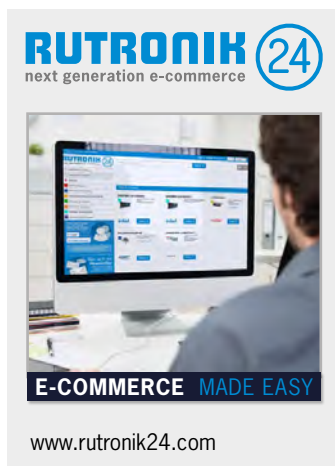


Our Product Portfolio

-  Semiconductors
-  Boards & Systems
-  Passive Components
-  Storage Technologies
-  Electromechanical Components
-  Wireless Technologies
-  Displays & Monitors

Our Initiatives

-  RUTRONIK IT ELECTRONICS
-  RUTRONIK SOLUTIONS
-  RUTRONIK AUTOMOTIVE
-  RUTRONIK EMBEDDED
-  RUTRONIK POWER
-  RUTRONIK SMART



Committed to excellence

Consult – Know-how. Built-in.

The Technical Competence from RUTRONIK

Worldwide and individual consulting on the spot by competent sales staff, application engineers & product specialists.

Components – Variety. Built-in.

The Product Portfolio from RUTRONIK

Wide product range of semiconductors, passive and electromechanical components, displays & monitors, boards & systems, storage and wireless technologies for optimum coverage of your needs.

Logistics – Reliability. Built-in.

The Delivery Service from RUTRONIK

Innovative and flexible solutions: from supply chain management to individual logistics systems.

Quality – Security. Built-in.

Quality without Compromise from RUTRONIK

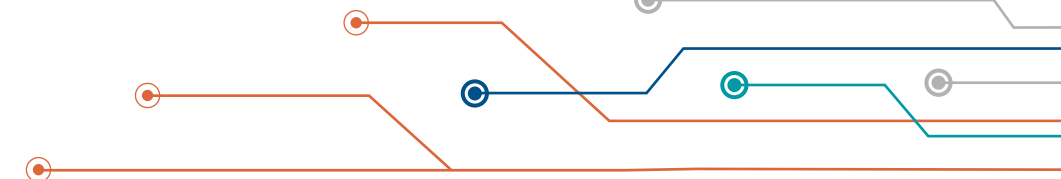
The integrated management system (IMS) encompasses quality control, information security, environmental protection, occupational health and safety.



YAGEO Group's – Built into Tomorrow


YAGEO Group's Leading Market Position




- No.1 in Chip Resistors
- No.1 in Discrete LAN Magnetics
- No.1 in Polymer Tantalum
- No.1 in Pt Temperature Elements
- No.3 in Ceramic Capacitors (MLCC)
- No.3 in Inductors and Automotive Magnetic Products



More about YAGEO Group

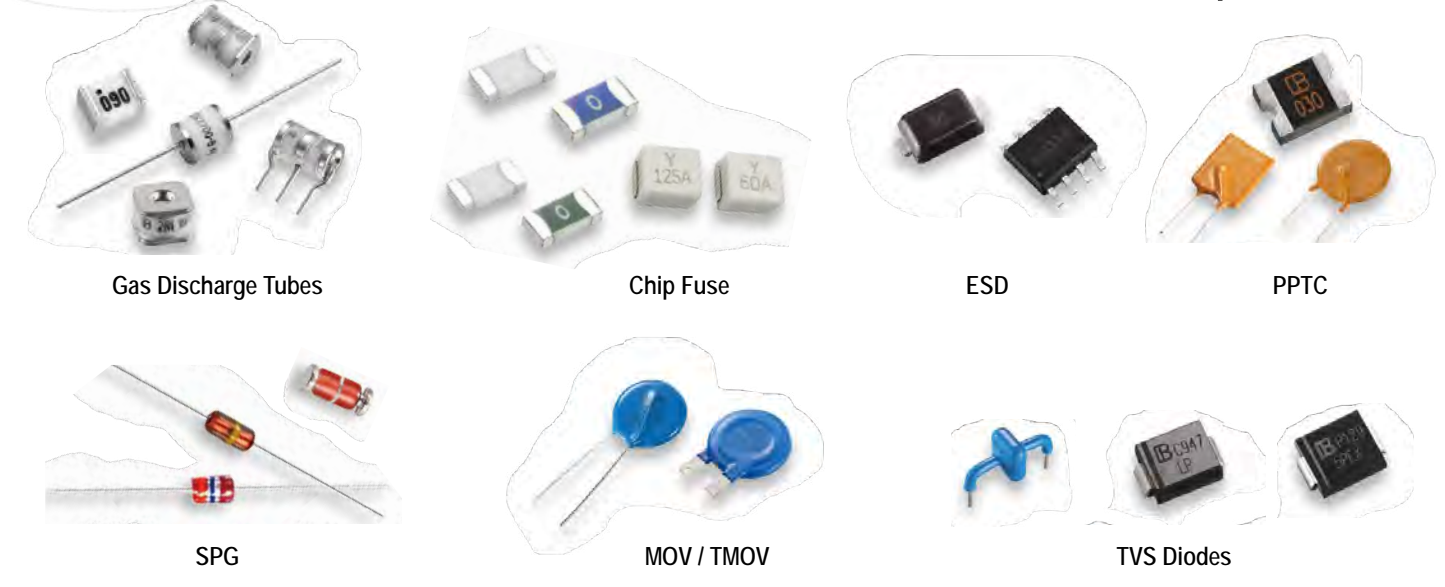




 <ul style="list-style-type: none"> ■ Chip Resistors ■ MLCCs ■ Leaded Resistors ■ Circuit Protection 	 <ul style="list-style-type: none"> ■ Tantalum ■ MLCCs ■ Film / E-Caps ■ Sensors & Actuators ■ Magnetics 	 <ul style="list-style-type: none"> ■ EMC/EMI Components ■ Power Magnetics ■ Transformers ■ Antennas & LTCC Filters 	<p>New</p>  <ul style="list-style-type: none"> ■ PT RTD Sensors ■ PCB ■ Sensor Assemblies ■ Sensor Elements with Wires
---	--	--	---

Chip Resistors

Circuit Protection Components



Thin Film Precision Resistor
- RP/AT/RT/VT/NT

Metal Current Sensor
- PA/PE/PU/PS

Thick Film High Reliability
- AC/AF/SR/RV/AH / - RC Small Size (01005/0075/0050)

Gas Discharge Tubes

Chip Fuse

ESD

PPTC

SPG

MOV / TMOV

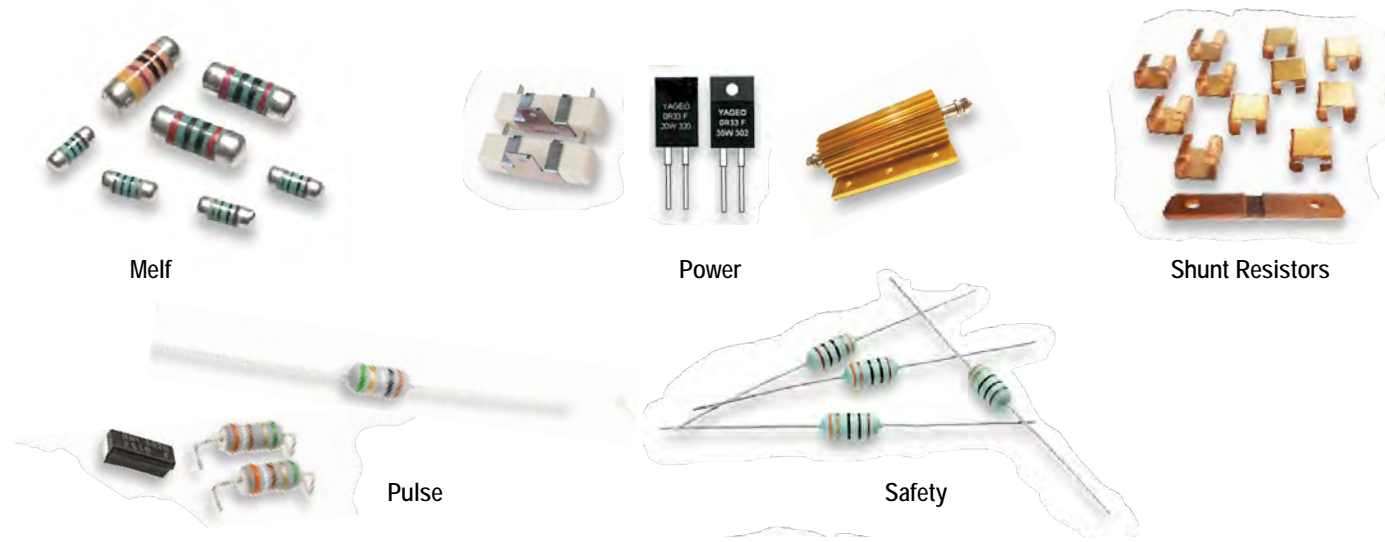
TVS Diodes

- World's 1st with 30%+ of global capacity
- 1st to launch metal current sensor 01005
- Obtains UL 2799A, the Highest Platinum Rating for Zero Waste to Landfill
- Sulfur Resistant & High Stability
- Sustainability Product, Lead Free Option
- AEC-Q200 qualified (for Automotive Grade)

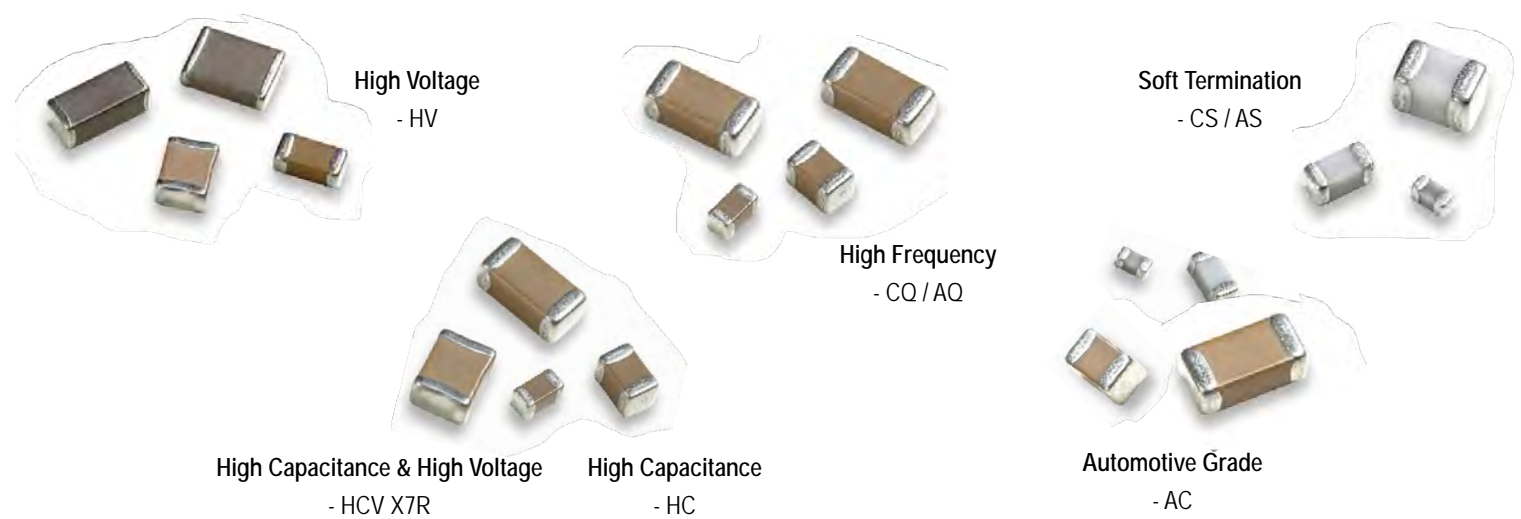
- Our wide product portfolio fulfills most customer needs, making us a top choice for your primary sourcing
- Market leading at overcurrent and overvoltage protection feature
- Fully vertically integrated semiconductor manufacturing process



Through Hole Resistors



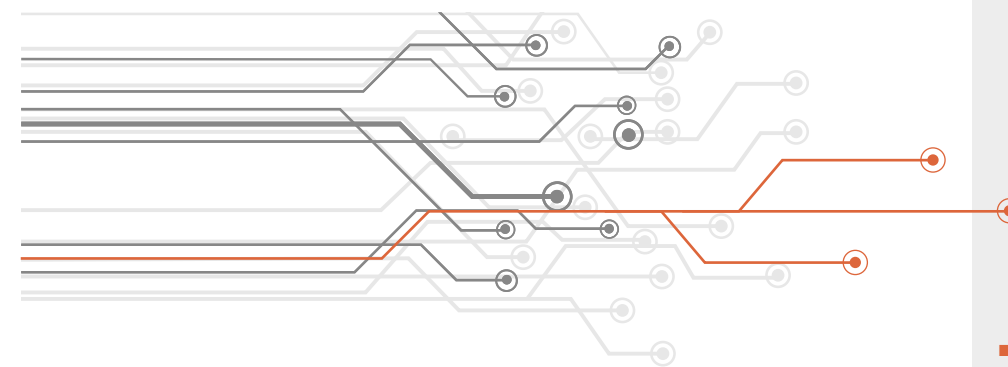
MLCC Multilayer Ceramic Capacitors



- One of the major market providers
- 3 factories in Asia and Europe
- 90 years of manufacturing experience in Through-hole resistors
- AEC-Q200 qualified (for Automotive Grade)
- IATF16949 certified
- UL, VDE certified



- Various case sizes from 01005 to 2220 (inch)
- High capacitances for Class I and Class II
- Complete high frequency product range up to 150°C
- AEC-Q200 qualified for Automotive Grade
- Rated voltage up to 3KV

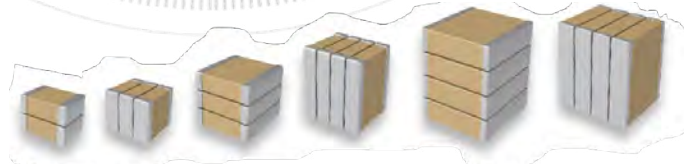




Ceramic Capacitors



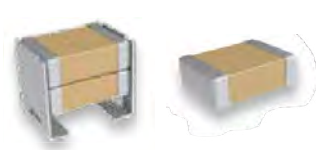
KC-LINK™
For Fast Switching Semiconductors



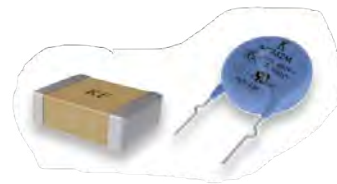
KONNEKT™
High-efficiency and High-Density Power Applications



HiQ-CBR RF
Automotive Grade



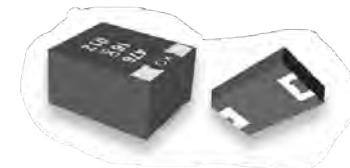
Flex Mitigation
Flex Term, VW80808, Open Mode, Floating Electrode, KPS



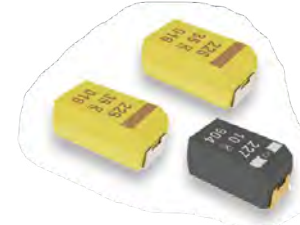
Safety Certified and AC Rated
SMD and Leded

Polymer / Tantalum / SuperCapacitors

Polymer Tantalum
High Energy Low Profile



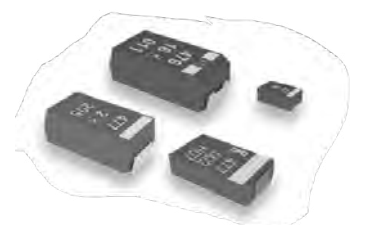
Tantalum Capacitor
MnO2



Polymer Tantalum
Automotive Grade

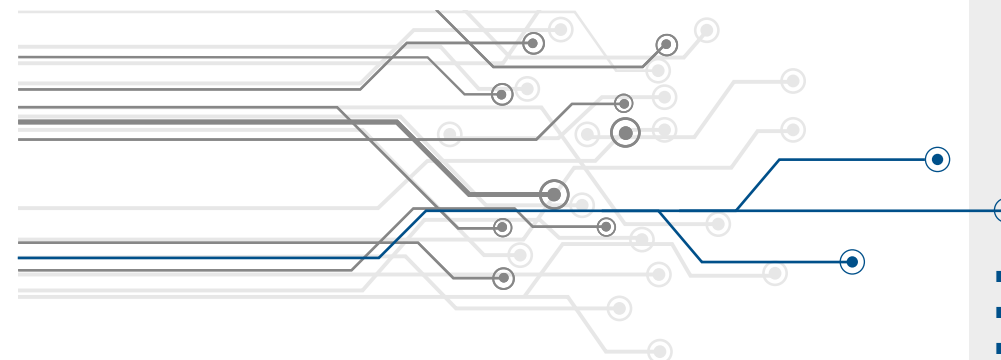


SuperCapacitor



Polymer Capacitor
Commercial Grade

- Class I dielectrics COG(NP0) and U2J
- High Voltage MLCC's rated ≥ 500 volts
- Commitment to large case size MLCC's from 0805 – 3640 (EIA)

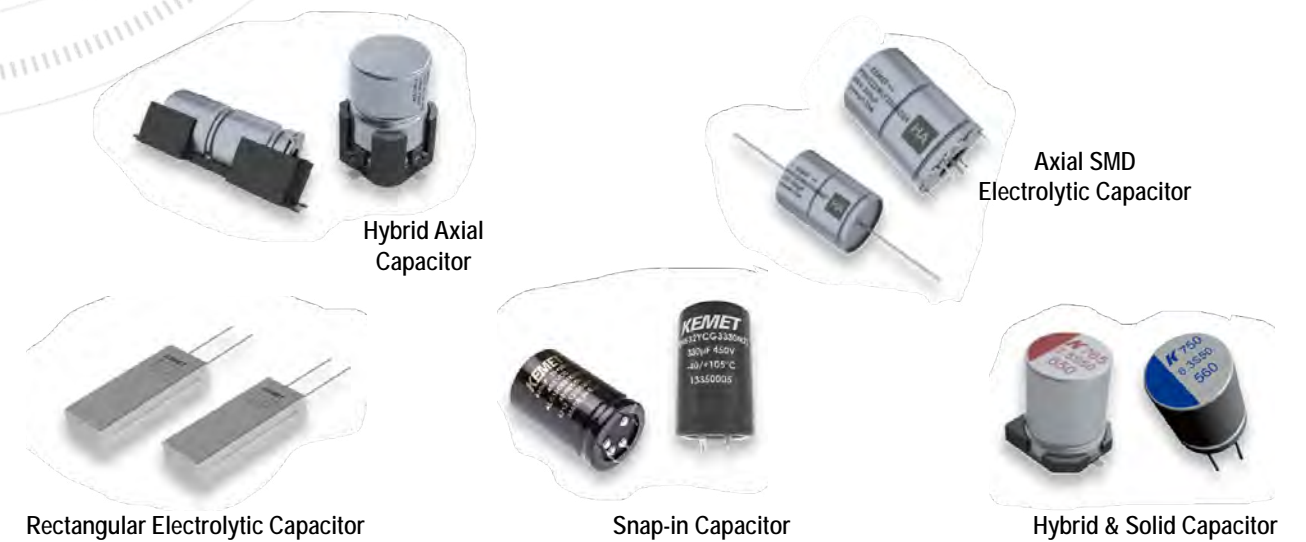


- Wide portfolio
- Leading Edge Technology
- Auto Grade 1st to market
- Customizing solution
- Fully covered market segments (Consumer to Space)
- Localized service and support
- Engaged with top players in each segment

Film Capacitors

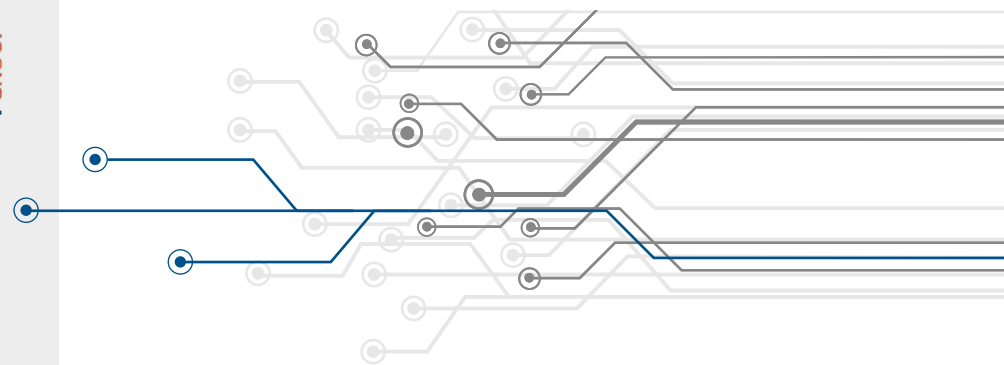


Aluminium Electrolytic Capacitors



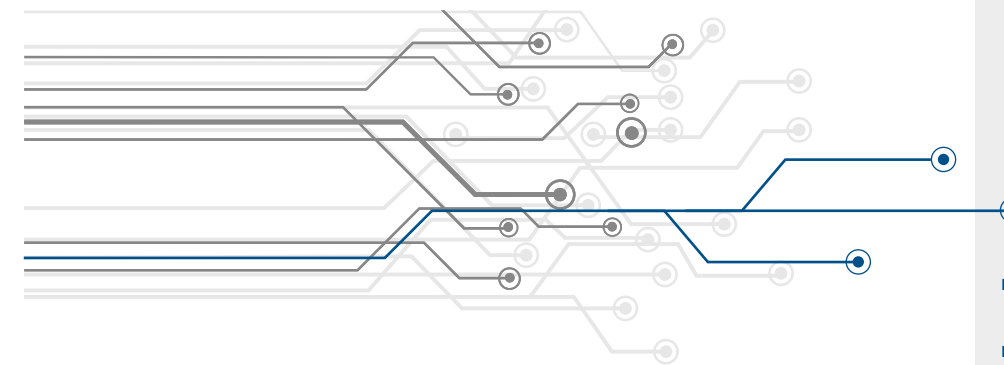
YAGEO GROUP
KEMET

- Self healing capability
- Miniaturization
- World 1st 135°C polypropylene film capacitor
- Withstanding harsh environmental conditions
- Low ESL for high frequency
- High reliability with extended life
- AEC-Q200 compliant

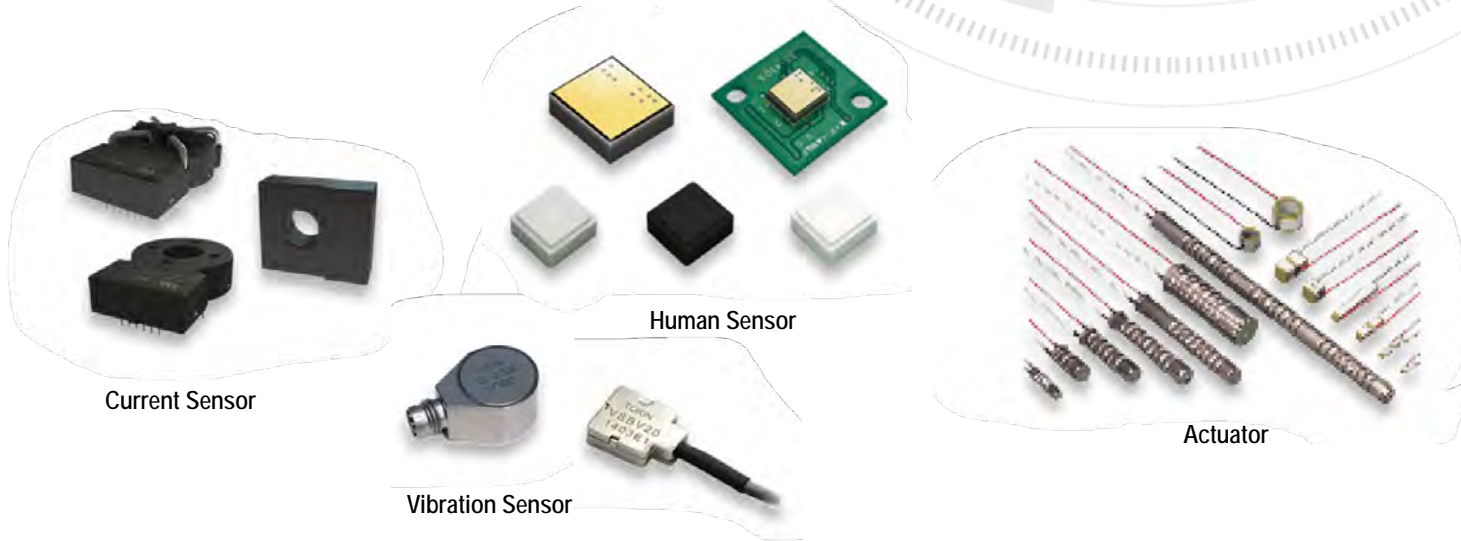


YAGEO GROUP
KEMET

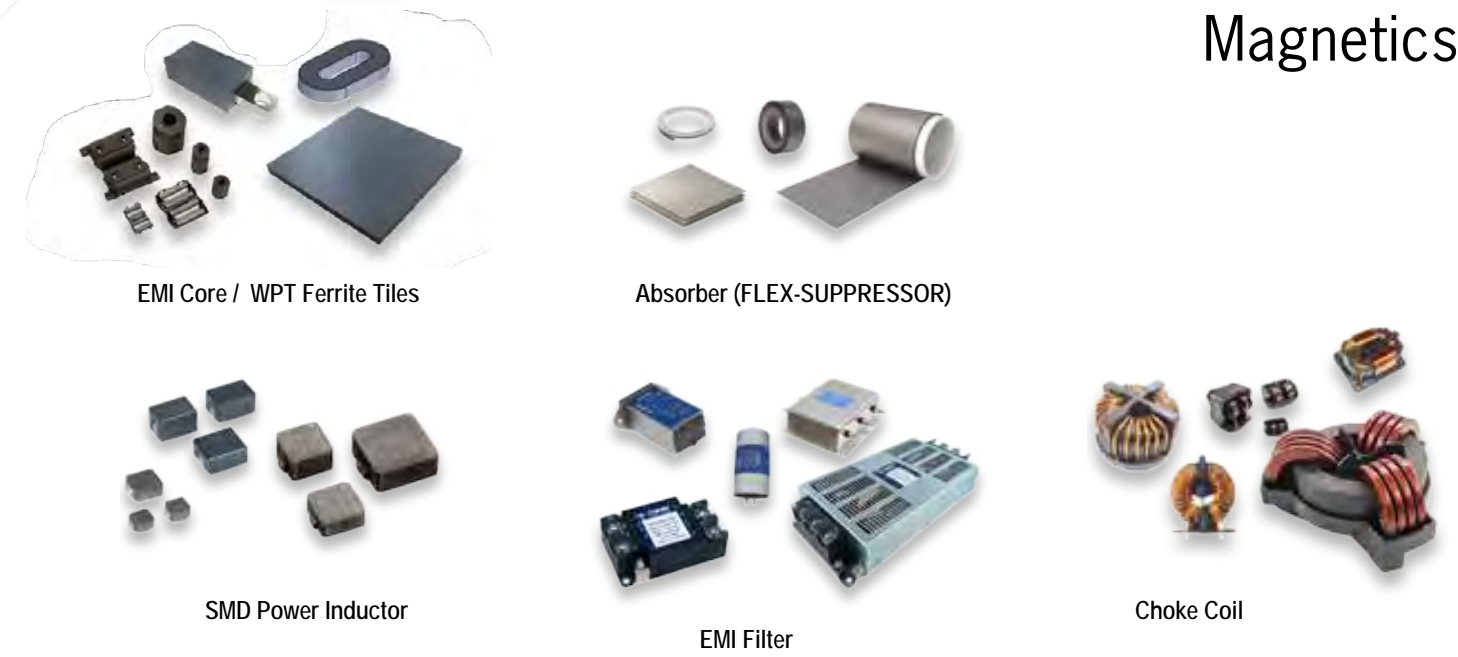
- Hybrid design, extremely high ripple current and low thermal resistance performance
- The first axial & radial crown SMD on the market
- Friendly to base cooling design, flexible ways of installation
- Anti-vibration design, 20g
- Shortest LT with competitive price



Sensors & Actuators



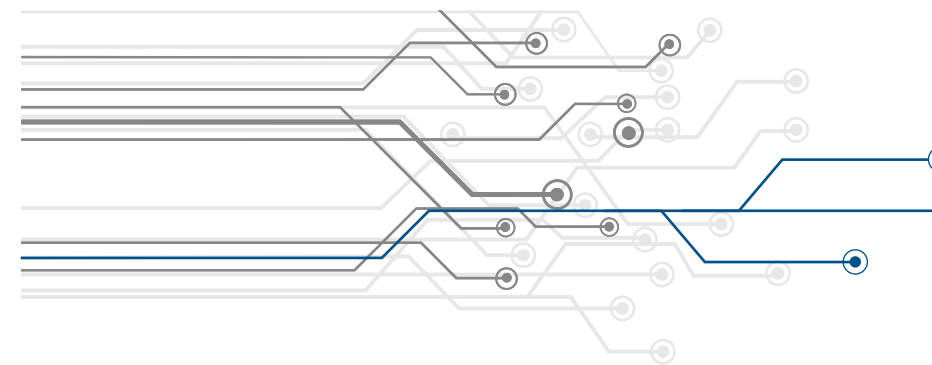
Magnetics

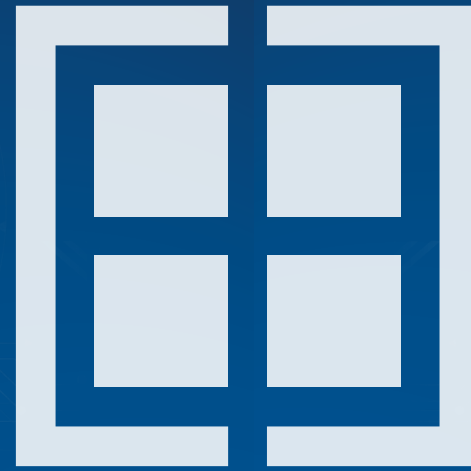


- High sensitivity, fluxgate-based current sensors
- High performance multilayer piezoelectric actuators
- Ultra compact and low profile pyroelectric infrared sensors (5.0 x 4.8 x 1.7 mm)
- High sensitivity, built-in amplifier vibration sensors

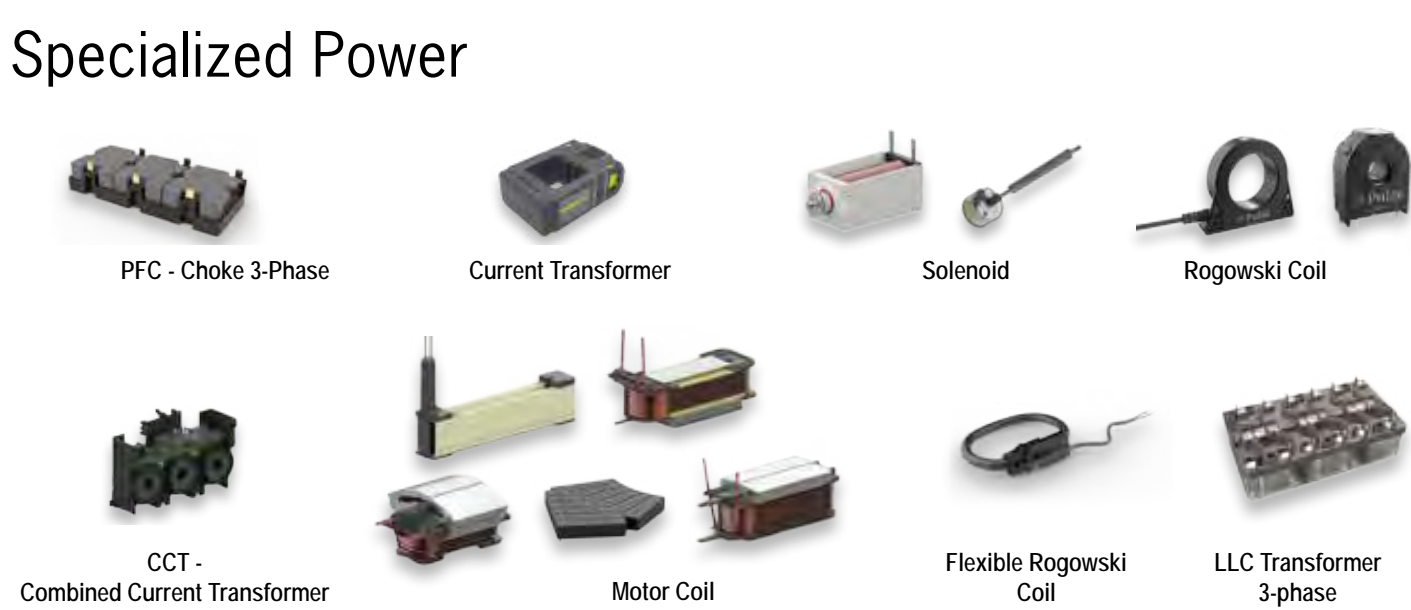


- Original unique magnetic materials
- First class automotive grade safety, reliability
- Ultra-high frequency effect absorber (up to SHF band)
- High rated voltage choke coil (up to 1,000V AC/DC)
- 50 G vibration resistance power inductors
- Ultra compact and high-performance EMI filters

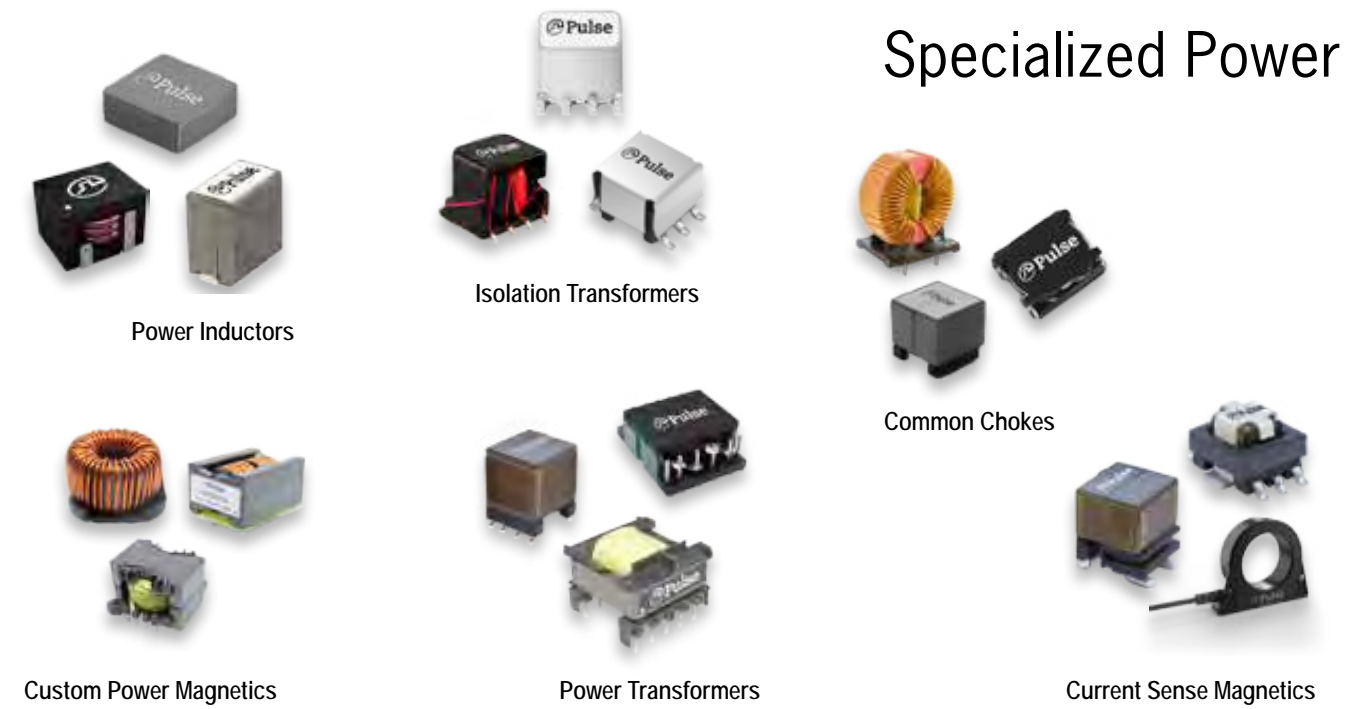




Specialized Power



Specialized Power



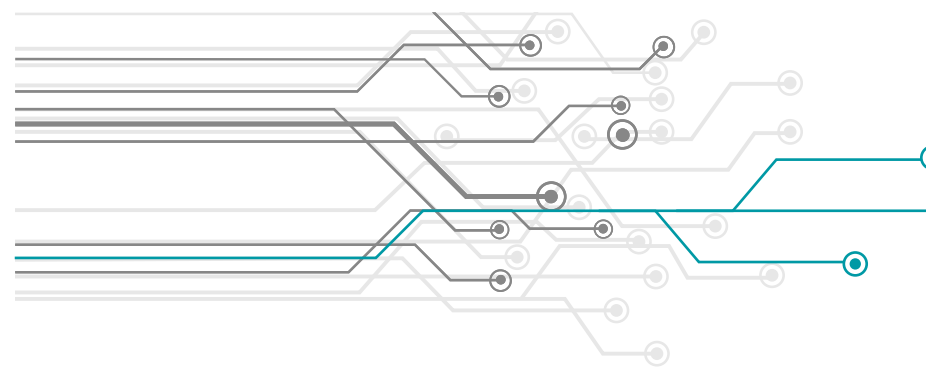
YAGEO GROUP PULSE

- PFC choke and LLC transformer for on board chargers up to 22kW
- CT, CCT and Rogowski coils for various measuring and billing applications such as smart grid and smart metering
- Motor coils for Hybrid cars, electric supercharger, linear motors for industrial and medical applications
- Solenoids for various automotive and industrial applications



YAGEO GROUP PULSE

- Specialized and custom power magnetics
- High power density and variable mechanical mounting
- Power bead inductors with high performance for Vcore power application
- IATF catalogue products





Wired Communications

Discrete Communications
Magnetics LAN



Automotive Communication
Magnetics (BMS & IVN)



Integrated Connector Modules (ICMs)



Connectors & Cages



Discrete Communications Magnetics WAN

Wireless Components



3D Antennas
LDS/LAP/FluidANT



Embedded Antennas
Ceramic/Helical/FPC/Stamped



Vehicular
Antennas



External/ In-Building
Antennas



LTCC based BPF, LPF, Balun, Diplexer,
Triplexer, Balanced BPF, and Coupler



Outdoor
Antennas



Internal Antennas
FPC/PCB/NFC/WPC/LCP Antennas



Cable & Mounting
Solutions

YAGEO GROUP PULSE

- Research, design and manufacture magnetic products and connectors used in through-wire communication systems to filter, transmit and isolate communication signals
- World's #1 in LAN Discrete Magnetic products
- Technology and market leader in Integrated Connector Module Magnetic products (ICMs)
- Technology and Market leader in automotive magnetic products



YAGEO GROUP PULSE

- Wide range of antenna options including flexible printed circuit board (FPC), PCB, direct mount, magnetic mount
- Frequency Bands from 13.56MHz to 8500MHz
- WiFi, Bluetooth, BLE, UWB, Zigbee, MiMo, GNSS, LEO, LTE, 5G FR1
- IoT, SmartGrid, meters, remote monitoring, sensor networks
- Customized solutions

Standard Power



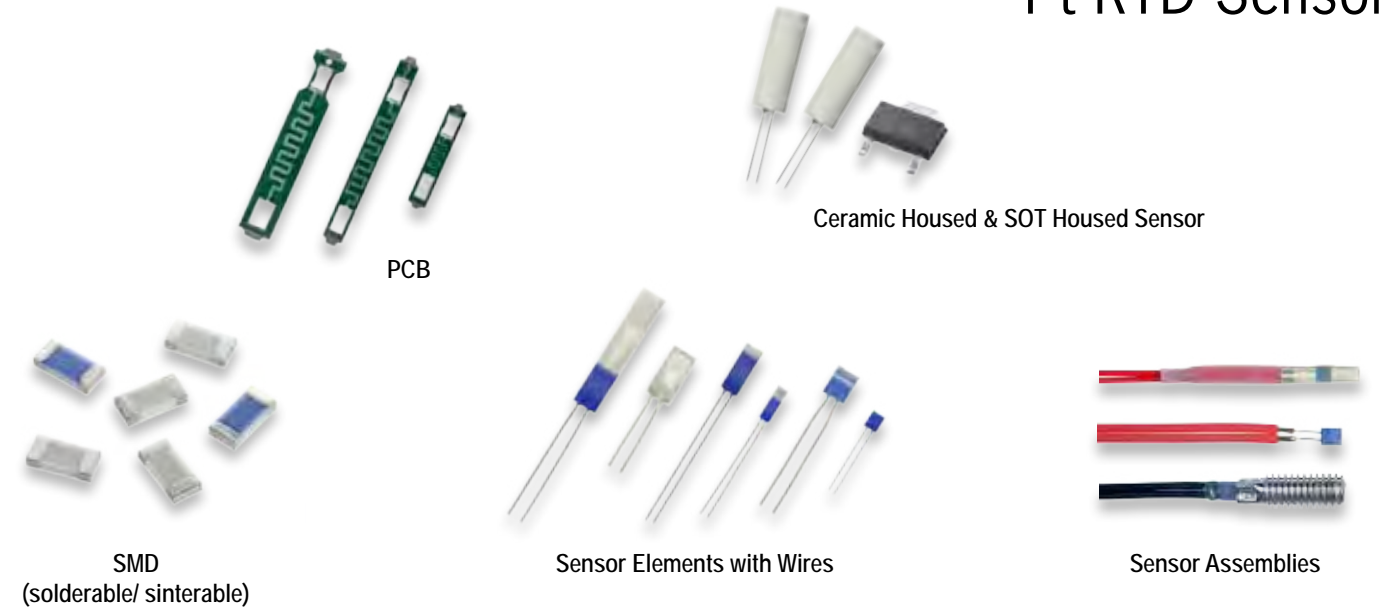
RF Signal Inductor

Molded Power Inductor

Wirewound Power Inductor

EMI Filter

Pt RTD Sensors



PCB

Ceramic Housed & SOT Housed Sensor

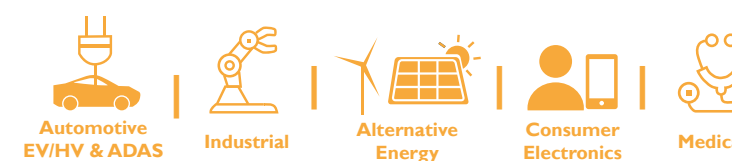
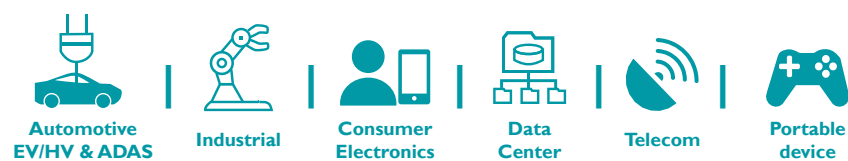
SMD
(solderable/ sinterable)

Sensor Elements with Wires

Sensor Assemblies

YAGEO GROUP PULSE

- No physical air gap and zero core gap loss (molded)
- High & soft saturation current, high power density
- High insulation resistance, high breakdown voltage
- Higher operating temp. and no thermal aging
- Cut off frequency up to 6GHz (EMI filter)
- High impedance @ low frequency - high frequency (EMI filter)



YAGEO NEXENSOS

- Pt temperature sensor pioneer since 1906, decades of experience and expert knowledge
- Global leader for platinum thin film technology
- High long term stability
- Interchangeability
- Broad temperature operating range
- Fast response time
- Automotive qualified products available
- Sensors engineered to custom applications

Committed to excellence



From Procurement to Delivery

SUPPLY CHAIN MANAGEMENT | WORLDWIDE

Find your regional Rutronik contact!



info@rutronik.com | www.rutronik.com