



*Reliability and Service creates the future of*

# ROYALOHM

Corporate Profile 2025



Royalohm Exclusive Italian Agent & Distributor

*Disclaimer: This document is a strictly confidential.*





# MILESTONES

**1978**

## Established

- Uni-Royal founded in Hsinchu, Taiwan
- OEM, DIP type Resistor

**1988**

## Established

- Thailand factory 1
- Global Sales

**1998**

## Expansion

- Chip capacity 500Mpcs/yr.
- Global Sales to more than 20 countries

**2003**

## Set-up

- SMD lines
  - Sales hub SZ, China
  - Chip capacity 10Bpcs/month
- ### New Products
- DIP ceramic materials
  - Thin Film Chip Resistors

**2008**

## Focus products

- High Power SMD
- Industrial up to 2500W
- Automotive Customize Resistors: ALU, KNHA, CAR 25W, 75W

**2013**

## New products

- Metal Foil & Metal Strip MS & LR Series
- 0201 Chip Resistors
- AEC-Q200 Chip Resistors
- Chip capacity 20Bpcs/month

**2015**

## Thailand Factory 2 Focus products

- **Surge SMD** : AS & PS series
- **Ultra High Power SMD** SP12 (2512) 3W-Patent
- **WWR surge until 12KV** KNPA series

**2019**

## Achievements

-  group member
- **#2 Global SMD producer**
- Implement SAP & BLM
- Chip capacity: 72Bpcs/month
- Ultra High Power SMD up to 6W (SP series)
- 0201 capacity: 15Bpcs/month

**2021**

## Focus Products

- 1005 = 265Mpcs/month
- 100% PB free expansion (PF series)

**2025**

## Continues Expansion

- LR Series = 47Mpcs/month
- Dedicated Auto grade production line
- Focus :
  - \* RA, PDMT, PDMS, PDMM
  - \* High Power Surge SMD
  - EV / Industrial Applications



# FOOTPRINTS



**1988**  
**Thailand factory 1**  
Workforce : 1,274  
Area : 16,000 m<sup>2</sup>



**2015**  
**Thailand factory 2**  
Workforce: 845  
Area: 88,480 m<sup>2</sup>



IATF 16949 : 2016



# SYSTEM CERTIFICATION



**IATF 16949**

**ISO 14001**

**ISO 9001**

**ITEM**

**THAILAND**

**THAILAND**

**THAILAND**

**FILE NO :**

**T1854**

**TAE24229**

**TAQ23456, 121215**

**CERTIFICATION**

**NQA**

**Best ISO**

**Best ISO, NQA**



**IATF 16949 : 2016**

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# PRODUCT CERTIFICATION



## VDE CERTIFICATE



|                       |                                           |
|-----------------------|-------------------------------------------|
| <b>PRODUCT SERIES</b> | MGR – Metal Glaze Film Resistor           |
| <b>CERTIFICATE</b>    | VDE Prüf-und Zertifizierungsinstitut GmbH |

## UL CERTIFICATE



|                       |                                                                                                                                                                                                                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT SERIES</b> | <ul style="list-style-type: none"><li>• HV06- High Voltage Chip Resistor</li><li>• MGR – Metal Glaze Film Resistor<ul style="list-style-type: none"><li>• FRN – Fusible Resistor</li><li>• FWR/FWRA – Fusible Wire Wound/Fusible Wire Wound with Anti Surge</li></ul></li><li>• KNPU – Wire Wound w/ UL</li></ul> |
| <b>CERTIFICATE</b>    | Underwriters Laboratories Inc.                                                                                                                                                                                                                                                                                    |

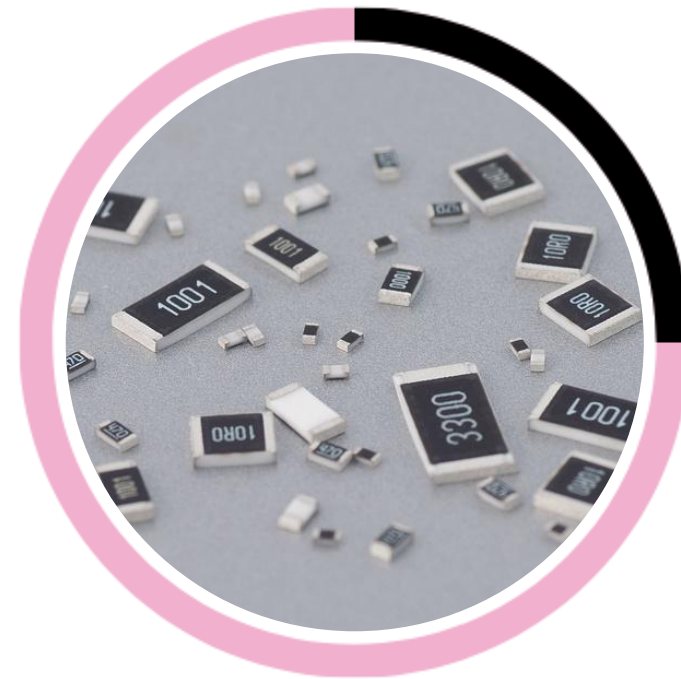


# PRODUCT LINES



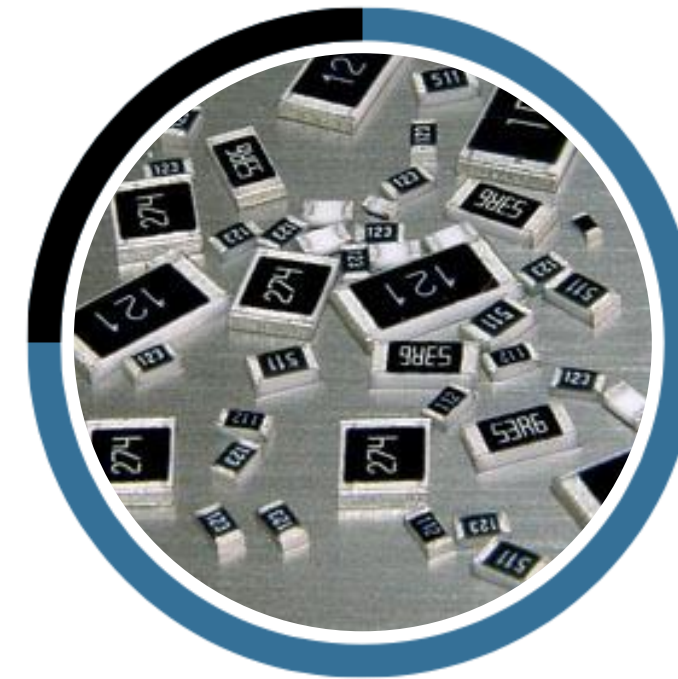
## Thick Film Resistor

- Complete PB Free (PF)
- Low T.C.R. (LT)
- Chip Array :
- Concave & Convex
- Metal Film Low Resistance (TL)
- Non Magnetic (NM)



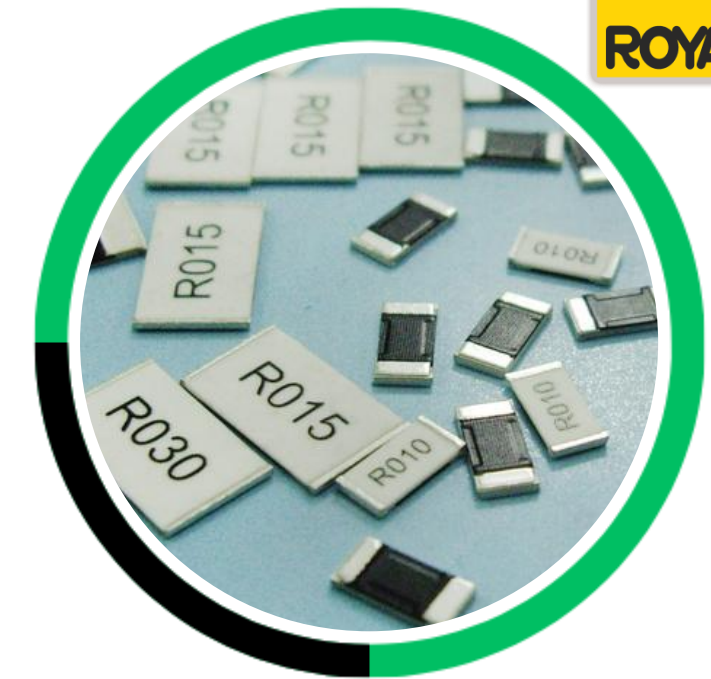
## Thick Film Resistor AEC-Q200 Compliant

- Automotive Thick Film (CQ & HQ)
- Anti-Surge (AS)
- High Precision Anti Surge (PS)
- Current Sensing (CS)
- Anti-ESD (ES)
- High Voltage (HV)
- High Voltage Anti Sulfurized (VS12)
- High Power (HP)
- Ultra High Power (SP)
- Anti Sulfurized (NS & NQ)
- Wide Terminal (WR)



## Thin Film Resistor (TC)

- Size: 0402~2512
- TCR: 10,15, 25, 50 PPM/°C
- Tol.:  $\pm 0.1\%$ , 0.25%, 0.5%, 1%



## Current Sensing Metal Element

- Metal Strip (LR)
- Metal Foil (MS)
- Wide Terminal (MW)
- Resistor Shunt ( RA)

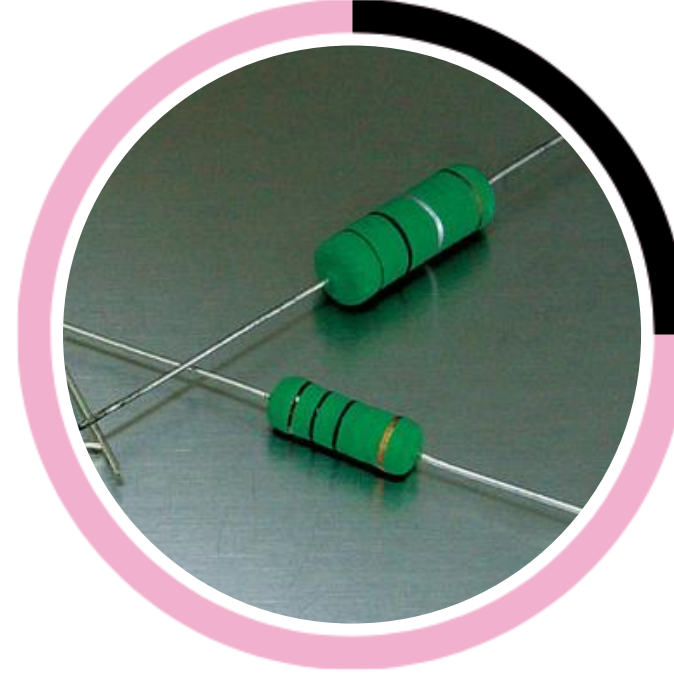


# PRODUCT LINES



## Filmed Resistor

- Carbon Film Resistor (CFR)
- Metal Film Resistor (MFR)
- Metal Oxide Resistor (MOR)
- Metal Glaze Resistor (MGR)
- Fusible Resistor (FRN)



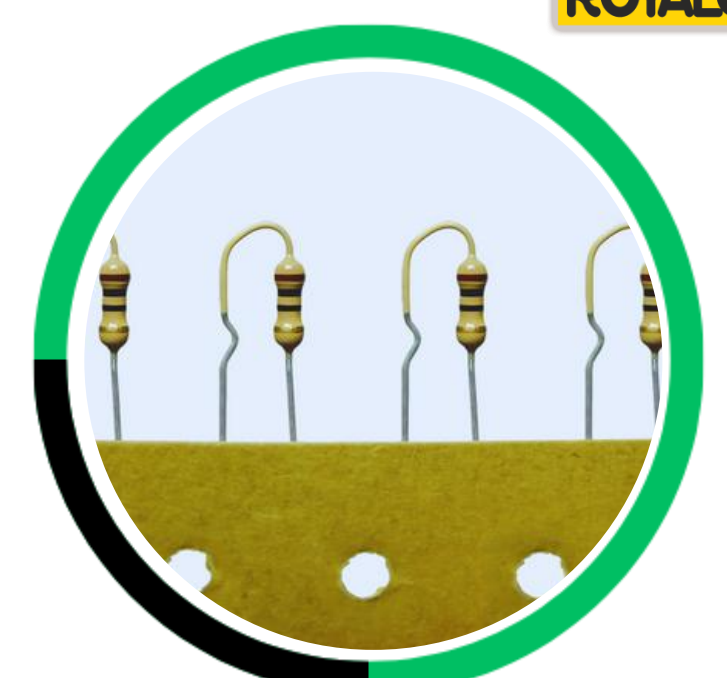
## Wire-Wound Resistor

- Standard (KNP)
- Anti Surge (KNPA)
- UL Approved (KNPU) 
- Fusible (FWR)
- Fusible w/ Surge (FWRA)
- Thermal Fusible (TFR)
- Terminal Type (KNH, KNS, KNHA)



## Zero Ohm / Jumper Wire

- Jumper Wire / Zero Ohm (ZW)
- Zero Ohm (ZOC, ZOT)

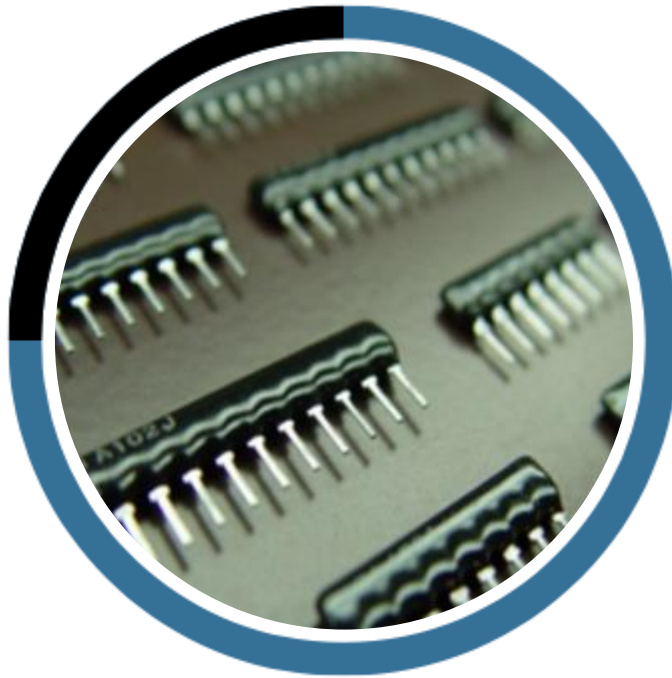


## Forming Type

- Panasert
- Avisert
- T, F, M type

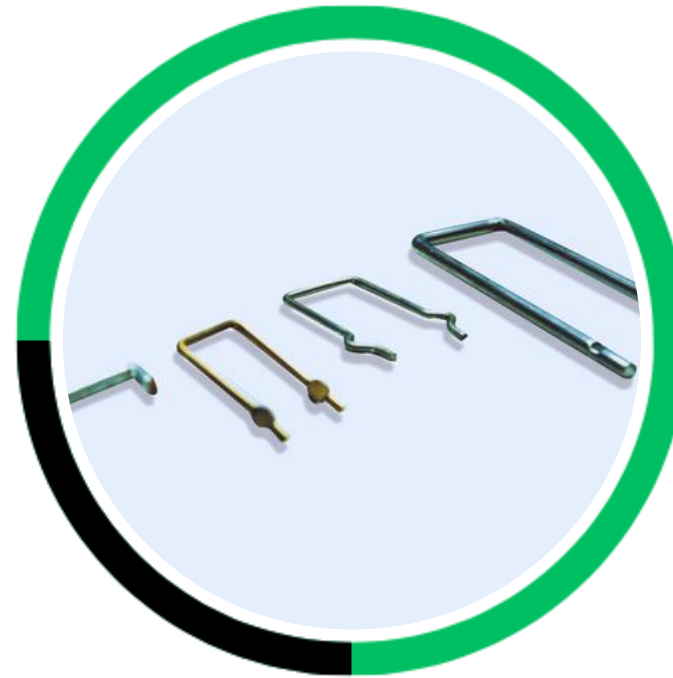


# PRODUCT LINES



## Resistor Network

- Single in Line
- RNL
- RPL
- RNM
- RPH



## Current Sense Shunt Resistor

- CSRA
- CSRB
- CSRC
- CSRD
- CSRE
- CSSA
- CSSB
- CSSC



## MELF (Leadless)

- Filmed Type : CFR, MFR
- Wire Wound Type :  
Anti-Surge (FA39)



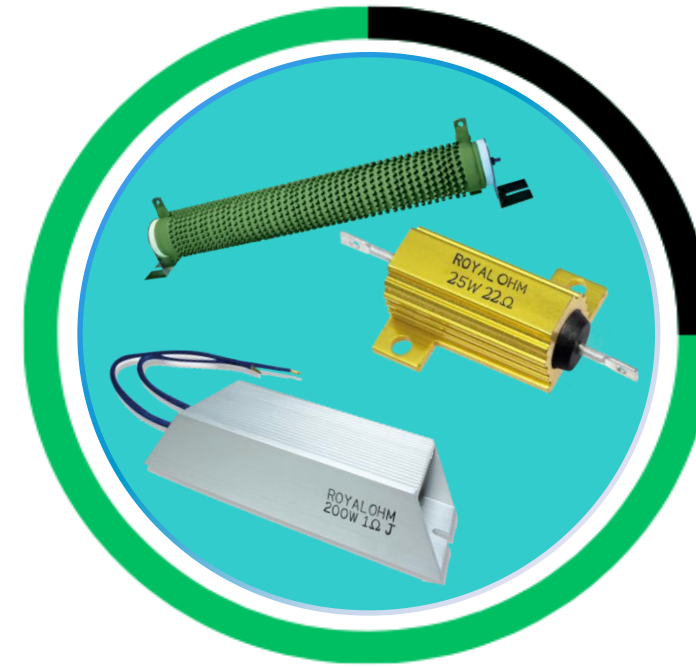


# PRODUCT LINES



## Cement Type

- Axial Type (PRW, PRWA, PRWC)
- Radial Type (PRS, PRM, PRMA, PRMB)
- Radial Terminal (PRZ, PRV, PRT, PRU)
- Lead Type (PRWI)
- Thermal Fusible (FTR)
- Power Flat Alloy (PFAS)
- LED Converter (RC06)



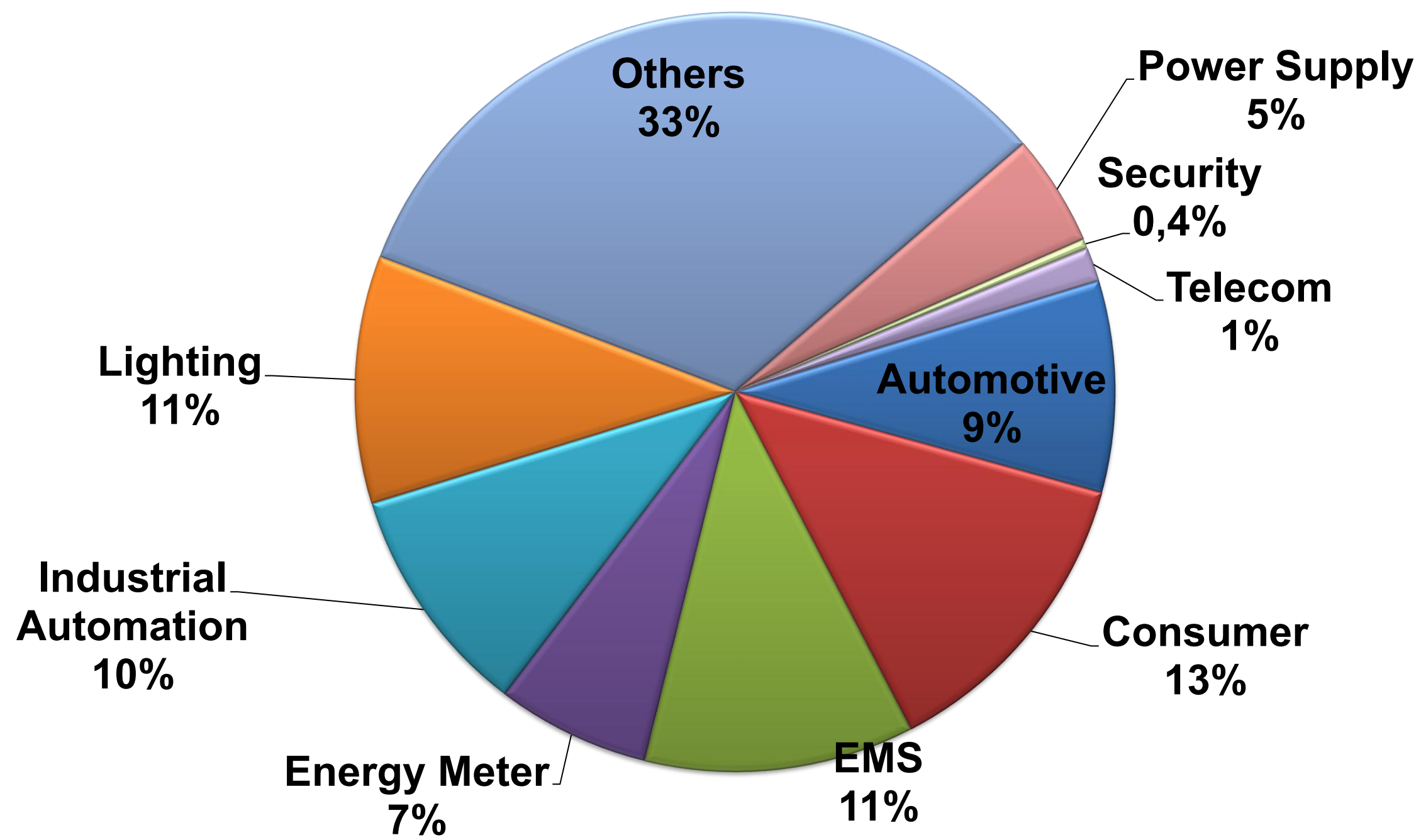
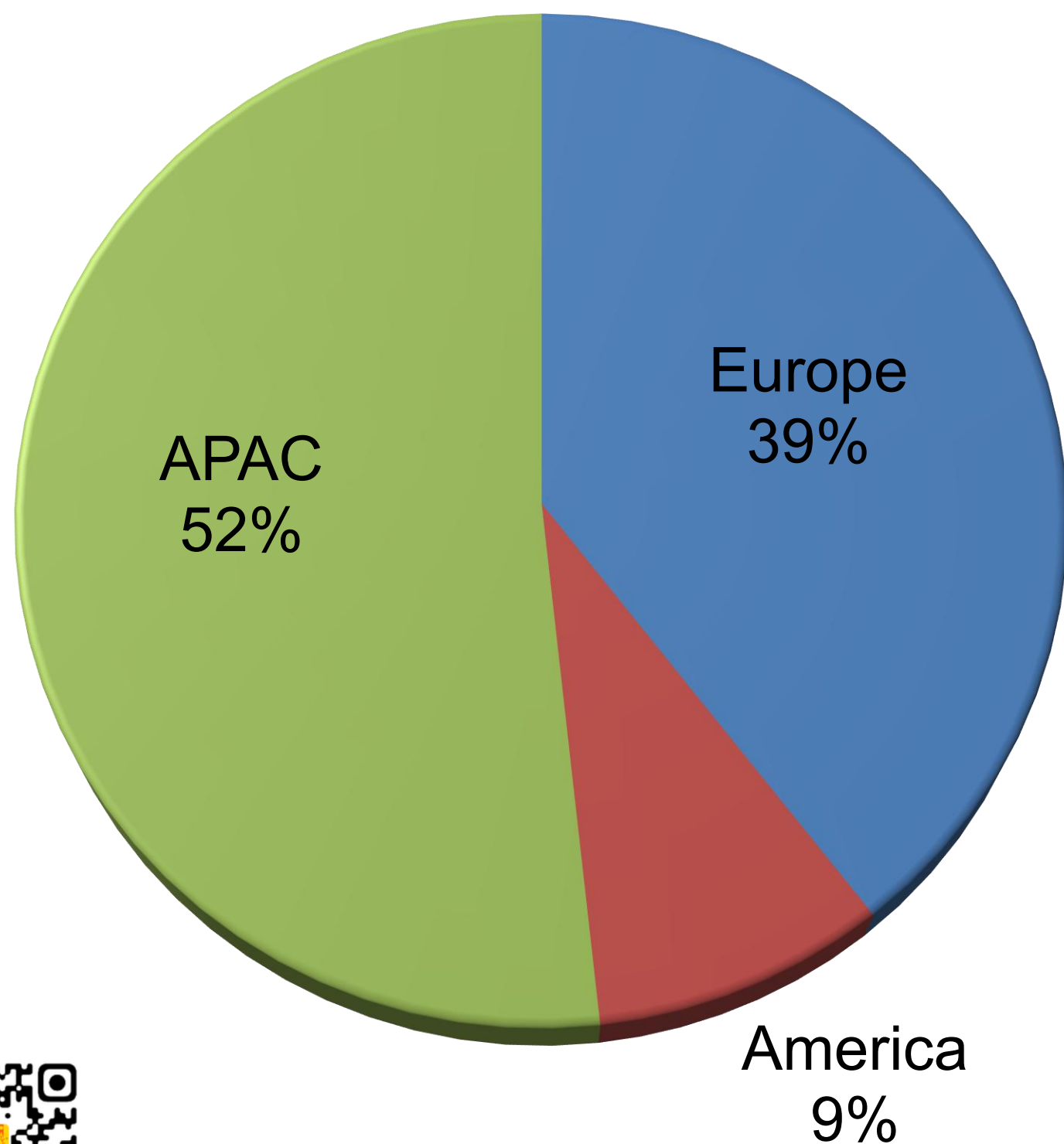
## Industrial Power Resistors

- Aluminum Power (PDM0, PDM1/2, PDMS, PDMM)
- Flat/Ribbon WW (QH, QL, QR, QRZG)
- Aluminum Braking Resistor (HEWR, HBWR)
- ASSY – Thermal Fuse WW





# MARKET DISTRIBUTION



# THANK YOU!

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