### **OKAYA Electric Industries, Co., Ltd**

### **Presentation 2018**

Prepared by : OKAYA ELECTRIC INDUSTRIES CO., LTD.



# **Company Profile**

- Year founded
- First Product in History

OKAYA

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- Capital
- Sales
- Employees
- Stocks

### 1946

- : Vacuum Tubes
- : US\$ 20M, EUR 18M (2018)
- : US\$ 123M, EUR 105M (2018) \*1USD=JPY111,1EUR= JPY129
- : 1,902 (Mar 2018)
- : Listed on Tokyo Stock Exchange (First section)



OKAYA First Product Special Vacuum Tubes For Japanese Navy (1942 ~1945)





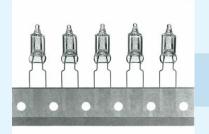


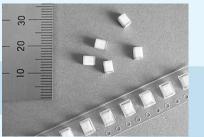














### GDT

### LED Lighting

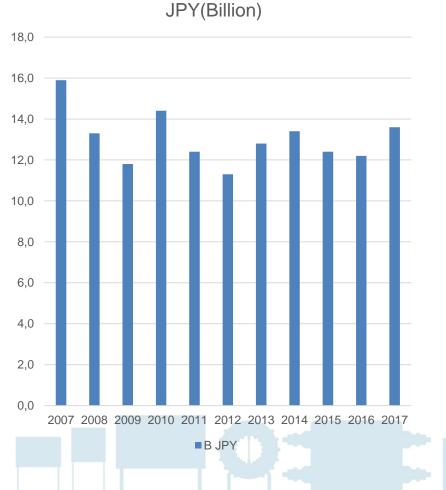
Meanwhile, from 1960's, film caps business launched at the decline in vacuum tubes business



# And still remains today...



## **Turnover history**





USD(Million)

### **Shareholders**

As of April 2018

•	Oki Electric Industry Co., Ltd.	15.7%
•	Meiji Yasuda Life Insurance Company.	9.0%
•	TPR Co., Ltd.	6.3%
•	Mizuho Bank, Ltd.	4.7%
•	Yasuda Real Estate Co., Ltd.	2.8%





# **Product Range**

### NOISE

- Noise Suppression Capacitor
- Spark Quencher
- Snubber capacitor
- Capacitor for PFC circuit
- Noise filter
- Common Mode Choke Coil

#### surge

- Gas Discharge Tubes
- Surge protective device
- Avalanche Breakdown Diode

### **LED** Display

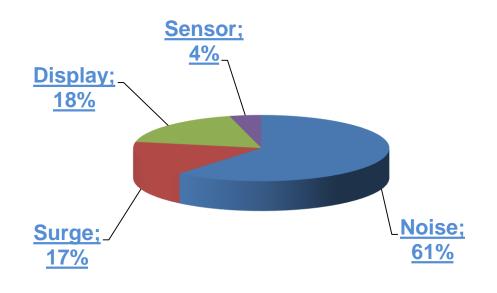
- High Power LED
- Bo-Jo LED
- LED Display

#### Sensor

- Infrared LED
- High Power Infrared LED
- Transmissive Photo Interrupter
- Photo Reflector



### **Sales Breakdown**



- Noise (Capacitor & Noise filter) 61% ٠ 17%
- **Surge Absorbers** ٠
- **Display** ۲
- Sensor •

18%

4%

### **Noise Suppression Capacitors**

Noise suppression capacitors are most widely applied in power line applications as countermeasures to noise occurring in inverters, switching power supplies, brush motors, and to the full range of office automation equipment.

OKAYA has many variety of noise suppression capacitors.



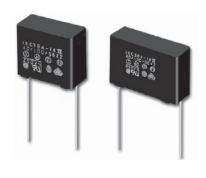




### Spark Quencher

Spark Quenchers are easily selectable electronic components designed to prevent or substantially minimize the occurrence of arching and noise generation in relay and switch contacts. They also serve as snubbing circuits for solid state switching devices.

Spark Quenchers consist of specially designed capacitors and resistors connected in series. Spark discharges and induced noise are absorbed over a wide range by the accumulation characteristic and impedance of the capacitor, while the RC time constant delays and averages surge voltage and oscillation.



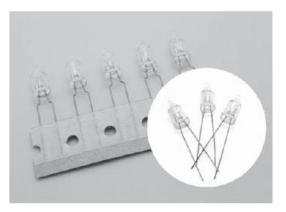


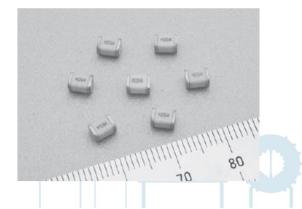
### **EMI/RFI** Power Line Noise Filters

Conductive noise interferes with electric components and systems by being transmitted along power lines and the wiring of electronic circuits. OKAYA's power line filters are designed to suppress conducted EMI/RFI emissions over a broad range of frequencies. Single Phase and 3-Phase Filters are available with voltage ratings to 500VAC and power rating to 250A. All filters have Safety agency approvals for worldwide acceptance.









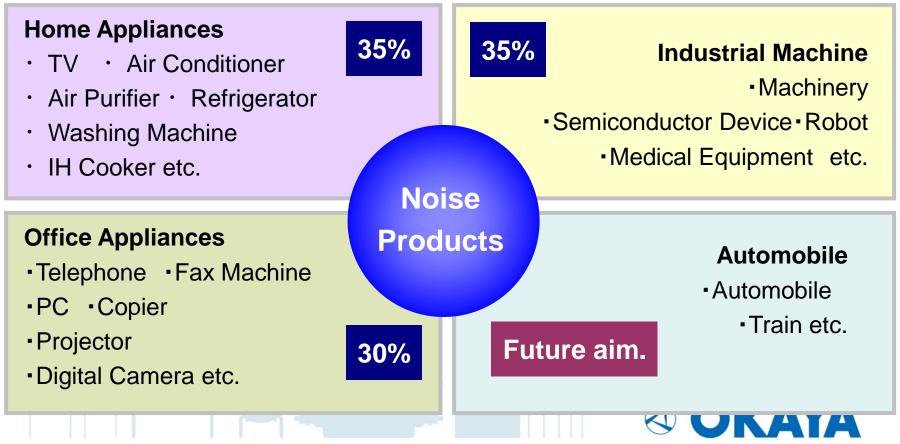
### Gas discharge tube(GDT)

### /Surge protective device(SPD)

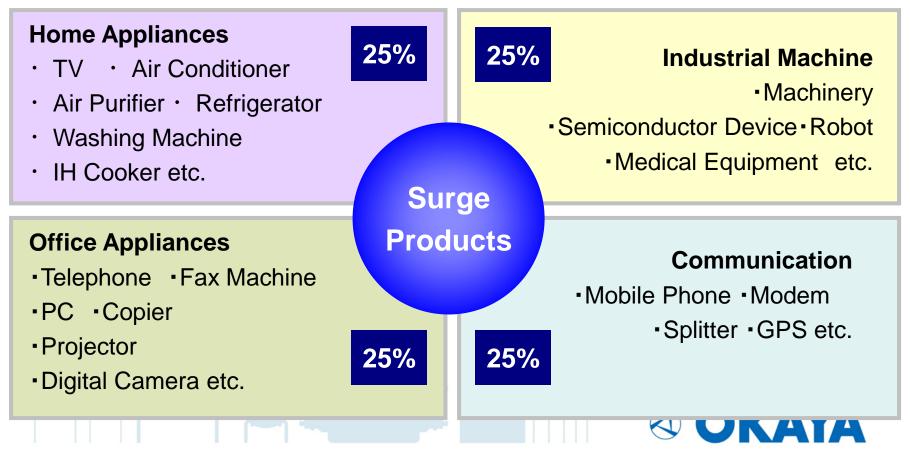
Power surges, both voltage and current, are occurring continually in today's power systems. Whether they occur naturally, such as from lightning and static electricity; or are man made, such as from inductive surges from motor, transformers, solenoids, etc. Power surges are a fact of life. These power surges have a very high voltage and current level as compared to electrical noise.

OKAYA's GDT and SPD are designed to aid in the suppression of high-energy transient voltage surges. Products ranging from Gas Tubes to Suppression Systems have worldwide approvals to meet safety agency requirements.

# Noise Product Market by Application



# Surge Product Market by Application

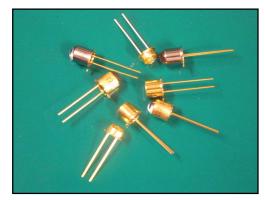


# **LED Display Products**









### Infrared LED

### **Transmissive Photo Interrupter**



**Photo Reflector** 



# **Major Customers**

- Sony
- Panasonic
- NEC
- Toshiba
- Hitachi
- Fujitsu
- Sharp
- Ricoh
- Sanyo
- Epson
- Pioneer
- Oki
- Mitsubishi
- Fuji
- JVC
- Murata

- Siemens
- Schneider
- Schaffner
- IBM
- HP
- HP/Compaq
- Honeywell
- Electrolux
- Motorola
- Dell
- GE
- Whirlpool
- Rockwell
- Kodak
- Alcatel
- Fanuc
- SMC Corp



# **Sales Network**

- Okaya Japan (OEI)
- Okaya America (OEA)
- Okaya Hong Kong (OHT)
- Okaya Singapore (OES)
- Okaya Thailand (OET)

Japan, Middle East, Africa, Oceania, EU North/South America Asia- China, Taiwan, Korea Asia- the rest of Asia Asia- Thailand







### Nagano Tech Center

(Nagano, Japan)



- Film Capacitor
- •LED
- Sensor

### Saitama Tech Center

(Saitama, Japan)



- •EMI Filter, Coil
- •Gas Discharge Tube
- Surge Protective Device
- Avalanche Breakdown Diode

### **Factory Locations**

Iwate, Japan





Fukushima, Japan Saitama, Japan







• Film Capacitor

Common mode

**Choke Coil** 

Film Capacitor

Noise Filter

•LED

- Sensor
- •GDT

•SPD

• ABD

- Noise Filter
- Common mode

• Film Capacitor

**Choke Coil** 

#### •SPD

·LED



#### Donguang, China Katunayake, Sri Lanka

### **Environmental Management System**

ISO14001	15
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### ERTIFICATE OF REGISTRATION



line Anter JSAE-348-4

#### Registered, Organization RIC INDUSTRIES CO., LTD.

Registration is listed below. ntal Wanagement Taxtue Standards

001:100. 150 14001:106

Scope of the Registration

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recycling researces.

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roducts, such as lead-free implementation saving capacitor development,

signing, manufacturing and sales of ents and devices, such as noise

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Renewal Date Revised Date February 23, 2004 March 5, 2504

ared Organization shall abide by ning the Maintenance of registration.

- Actes

light as and an inclusion from

se Standards Association

### Quality Management System

#### ISO 9001 CERTIFICATE OF REGISTRATION



JSAQ 028

QMS

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Management Systems Enhancement Department of the Japanese Standards Association (JSA) registers the Quality Management System of the above organization, which conforms to

JIS Q 9001:2000, ISO 9001:2000. Condition of Registration

Described in Appendix to the Certificate of Registration Ro. J S A Q D 2 6 - 9

Registration Date	Renews) Date	Copicy Data
April 5, 1995	April 5, 2004	February 22, 2001

Shope Sadadara

Director General

Katanya Karola

Management Bysterro Entransminist Department Energiese Director

Japanese Standards Association

#### ISO 9001

#### APPENDIX TO THE CERTIFICATE OF REGISTRATIO



JSAQ 026-9

Registered Graenization

#### OKAYA ELECTRIC INDUSTRIES CO., LTD.

Condition of Registration is listed below.

Buslitz Management System Standards JIS Q 9001:2000. ISO 9001:2000

The Scare of the Registration

(1) Designing and manufacturing mean lass products, masse succreation commonsts, voltage surge absorberg, plasms display modules. LED modules, data processing systems, electronic information display systems, and environmentarabeted products.

Blanufacturing light pullches and electron takes. ID Salling mechanical components, such as commectars, switches, etc., and electronic components, such as semicomductors. UEA, LEDs, mtc.1, and a variety of remistars and consciturs.

History

Instation Data Renewal, Data April 5, 1995 April 5, 2004

The registered Organization shall shide by the Bules Governing the Maintenance of registration.

Channel of 24th Associated and Regionalize Convertise

Japanese Standards Association

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Thank you for your attention

Dziękuję za uwagę

Vielen Dank für Ihre Aufmerksamkeit

İlginiz için teşekkür ederim

Grazie per l'attenzione

Gracias por su atención

Merci de votre attention

