



***Sam Young Electronics Co., Ltd.***



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# 1. Introduction

## Summary

- Corporate name : Samyoung
- CEO : Dae-Ho Kim
- Established : 20th Aug 1968
- Employee : 1,620 P  
(Korea 640 P, China 980 P)

## Products

- Aluminum Electrolytic Capacitor
- Aluminum Solid Capacitor
- Capacity : 370 M PCS / Month





# 1. Introduction

## History



- '68. 08 Samyoung Electronics Co., Ltd was founded.
- '72. 06 Established a Joint Ventured with Nippon Chemi-con
- '76. 12 Listed going Public Stocks (KOSPI Korea stock market)
- '88. 1 Established Samsung research institute
- '94. 06 Certificated IEC-Q
- '94. 12 Established Qingdao Samyoung Electronics in China
- '97. 12 Certificated ISO-14001
- '01. 4 Established Poseung 1 Factory (Foil factory)
- '03. 7 Certificated SONY GREEN PARTNER
- '04. 9 Certificated ISO/TS 16949
- '08. 3 Established Poseung 2 Factory (Foil factory)
- '10. 12 Awarded Large and Small Business Cooperation Promotion Award
- '11. 3 Certificated Samsung ECO-Partner
- '15. 3 Awarded Exeemplary Taxpayer Award
- '15. 9 Certificated a over 9,830,000hrs uninjury record
- ' 18. 5 Certificated IATF16949





## 2. Business Site

### Overseas Branch & Plant Site

- Manufacture site
- Sales Branch



HQ & 1<sup>st</sup> Factory  
[Korea]



2<sup>nd</sup> Factory  
[Korea]



Foil Factory  
[Korea]

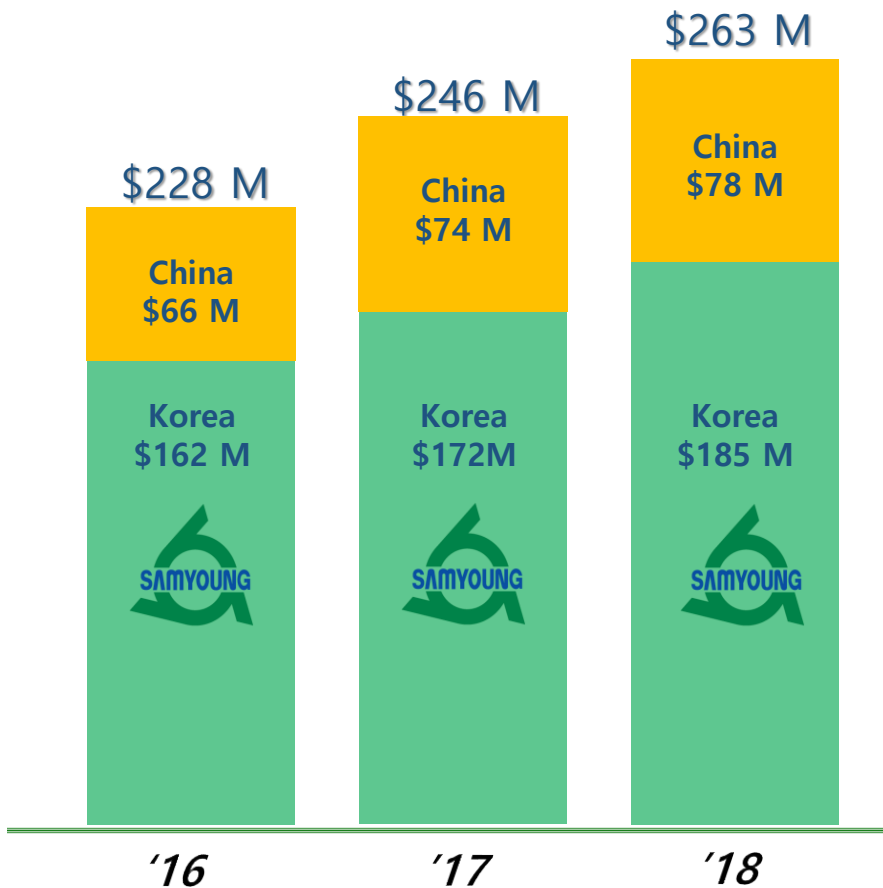


Qingdao Factory  
[China]

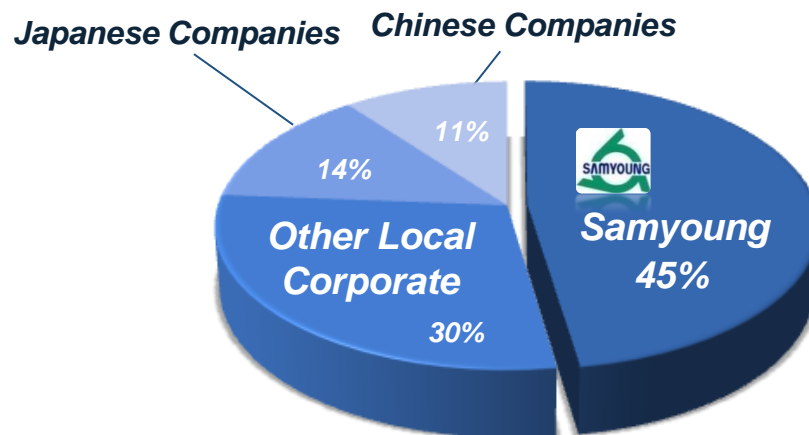


# 3. Sales Volume

## Sales Figure



## Market Share In Korea



## Credit evaluation

Year	Credit rating	Cash Flow Rating	D&B Rating
2018	AA-	A(CFR1)	5A1
2017	AA-	A(CFR1)	5A1
2016	AA-	A(CFR1)	5A1



# 3. Sales Amount

## SET Portion

(Based on the sales amount)

SET		2016	2017	2018
DISPLAY	LED TV, M/T	6.1%	3.1%	2.5%
	PSU	22.6%	25.8%	22.8%
Home Appliance		10.5%	13.8%	13.6%
Automotive		15.1%	15.6%	12.7%
Inverter		2.3%	3.7%	3.5%
DVD/ODD/COMBP		0.8%	0.4%	1.8%
SMPS/Charger		3.4%	2.8%	2.6%
Etc.		39.2%	34.8%	40.5%

## User Portion

(Based on the sales amount)

	SAMSUNG	LG	HYUNDAI	Etc.
2016	20.3%	21.6%	10.3%	47.8%
2017	23.8%	21.3%	10.8%	44.1%
2018	19.3%	18.1%	8.2%	54.4%



# 3. Sales Amount

## Main Clients





















Application	Partners
 <p>Home Application</p>	
 <p>Automotive</p>	
 <p>Industrials</p>	





# 4. Production capacity

## Production capacity

TYPE	Capacity (Kpcs/Month)			Application
	Korea	China	Total	
 <b>CHIP TYPE</b>	47,800	44,000	91,800	 <b>CAR</b>  <b>STB</b>  <b>TV</b>  <b>AUDIO</b>
 <b>RADIAL TYPE</b>	37,500	239,350	276,850	 <b>CAR</b>  <b>LED</b>  <b>PSU</b>  <b>TV</b>
 <b>LARGE TYPE</b>	1,300	1,650	2,950	 <b>House application</b>  <b>Elevator</b>  <b>Industrial Inverter</b>  <b>Green Energy</b>
 <b>Conductive Polymer</b>	2,700	-	2,700	 <b>CAR</b>  <b>Laptop</b>  <b>Charger</b>  <b>Main Board</b>  <b>CCTV</b>
<b>Total</b>	<b>89,300</b>	<b>285,000</b>	<b>374,300</b>	



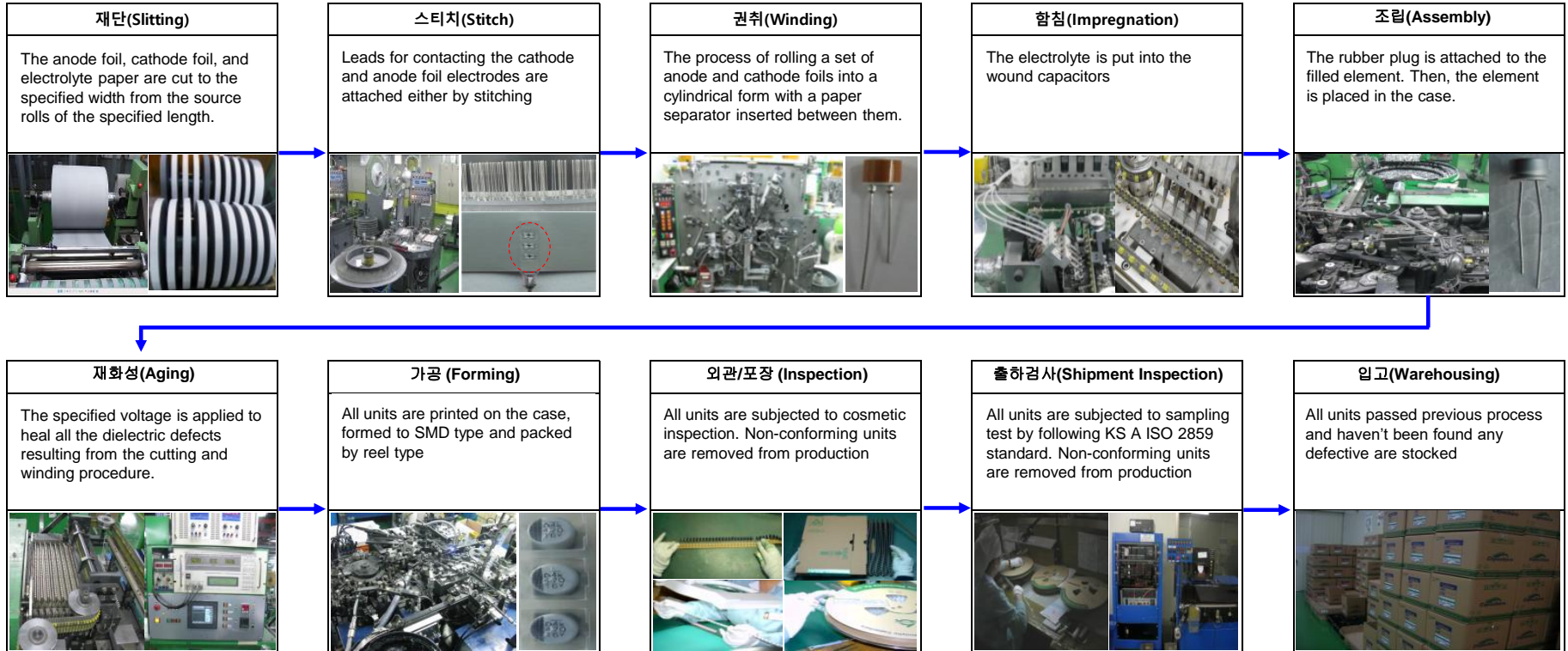
# 5. Quality certification

- IATF16949
- ISO-14001
- SONY Green Partner
- SAMSUNG ECO-Partner



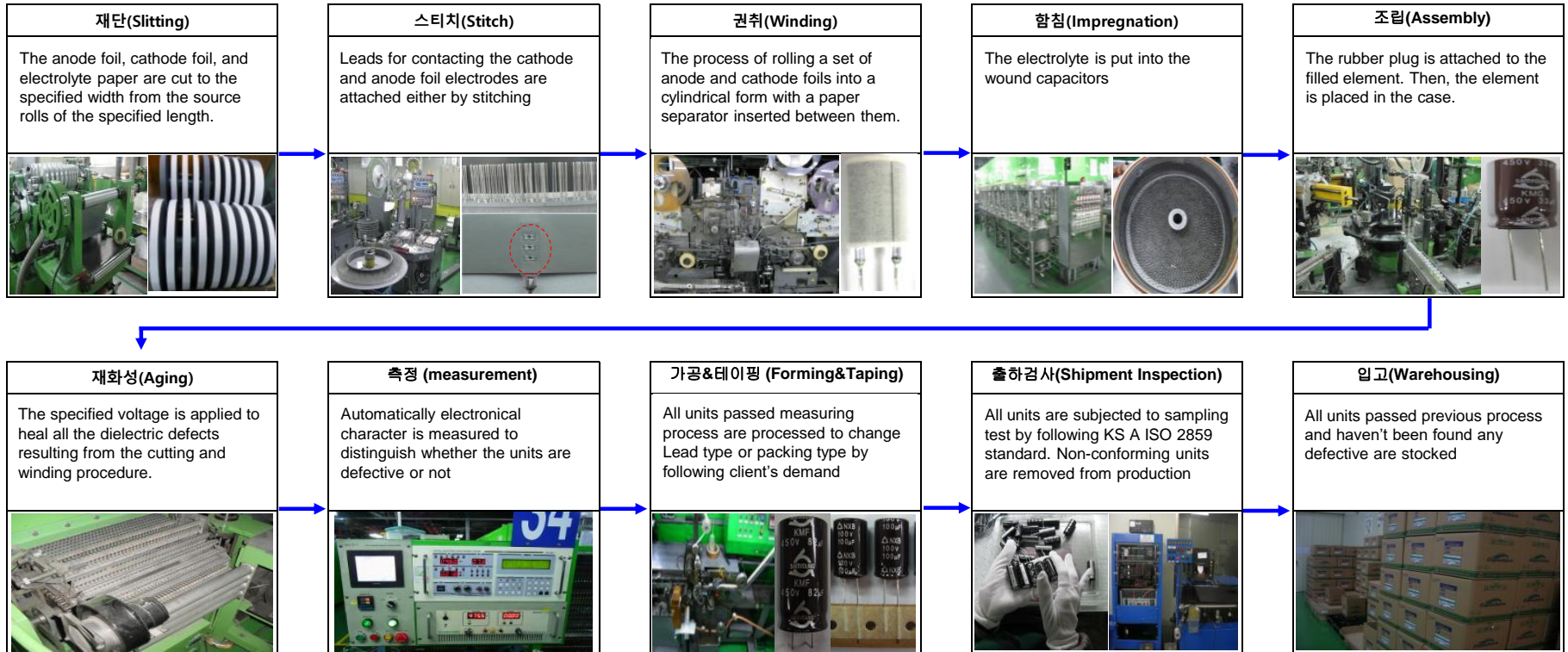
# 6. Production flow

## SMD TYPE



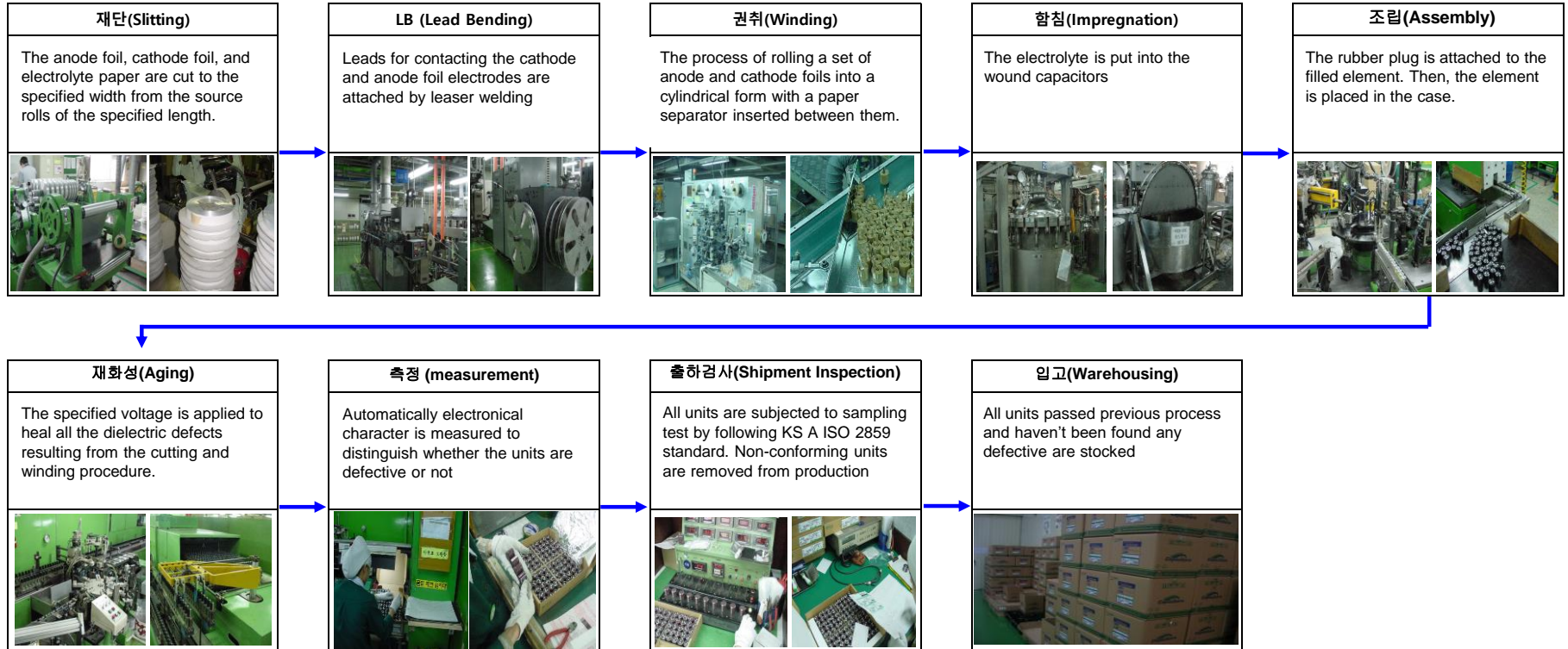
# 6. Production flow

## Radial TYPE



# 6. Production flow

## LUG TYPE





# 7. Competitiveness

*Stable material procurement*

Chemical conversion treatment and etching facilities itself produced

## Increase in productivity

Localization of aluminum foil

Improving quality by adopting advanced quality control technique

Quality Stabilizing

Cost Reduction

Delivery Stabilizing



# 7. Competitiveness

## *Self-Production of facilities*

- Saymyoung could produce production facilities itself
- Lasting research and improvement of facilities for quality control and productivity

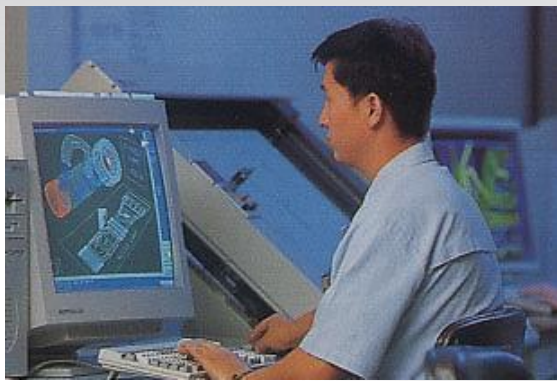
Design facilities



Manufacture of equipment



Mass production

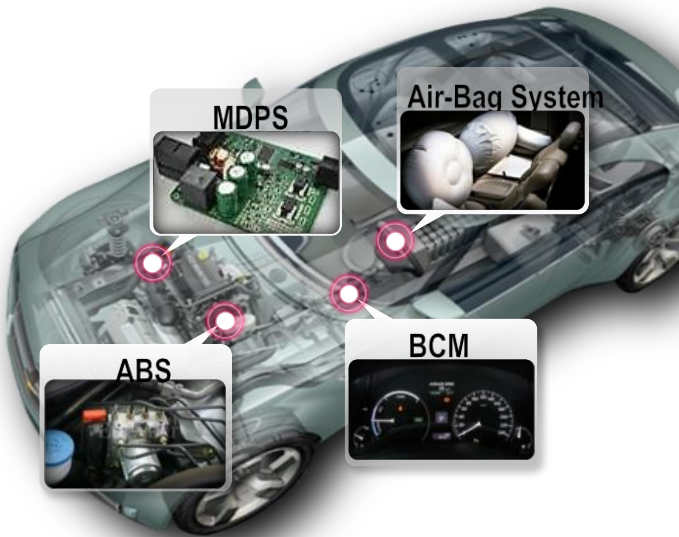




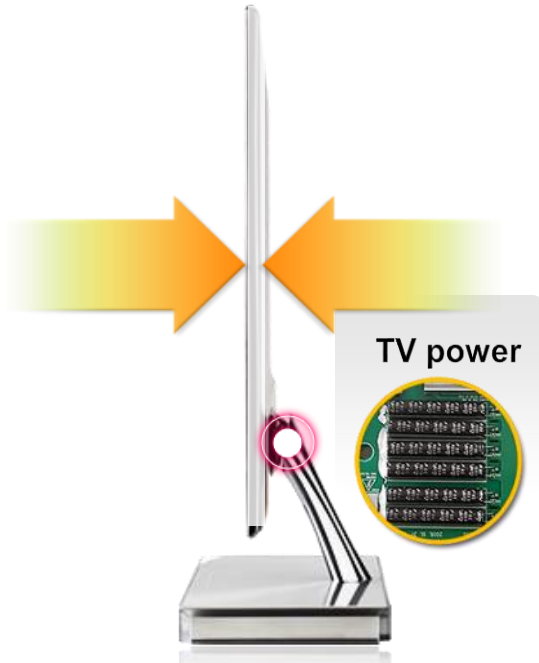
# 7. Competitiveness

## Various Application

- Know-How for Development and Supply of Automotive Parts and Electric Parts including LED TV, LED Lighting.



**BXQ/CLS/PFA Series**



**Super slim capacitor**



**NXQ/NBC series**



**RFA/TFA series**





# 7. Competitiveness

## Polymer capacitors for high voltage

Samyoung can provide capacitors applied on various sets by developing polymer capacitors for high voltage



AUTOMOTIVE

Mainboard



LED TV



LED



DC-DC converter



VGA Cards



Adapter



## Engine Room

### ECU (Engine Control Unit)



- **Needed Characteristics**
- High Temperature
- **Recommended items**
- CLZ : -40~125°C, 2K~5KHrs
- PXB : -40~125°C, 2K~5KHrs
- PHA : -40~150°C, 2KHrs

### MDPS(Motor-Driven Power)



- **Needed Characteristics**
- High Temp., reliability
- **Recommended items**
- PXB : -40~125°C, 2K~5KHrs
- PFA : -40~135°C, 2K~3KHrs

### ABS (Anti-lock Brake System)



- **Needed Characteristics**
- High Temperature
- **Recommended items**
- CLZ : -40~125°C, 2K~5KHrs

### TCU (Transmission Control Unit)



- **Needed Characteristics**
- High Temperature
- **Recommended items**
- CLZ : -40~125°C, 2K~5KHrs

### \* Cooling Fan Controller



- **Needed Characteristics**
- High Temperature
- **Recommended items**
- PXB : -40~125°C, 2K~5KHrs
- PFA : -40~135°C, 2K~3KHrs

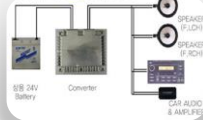
## Body Part

### Air-Bag System



- **Needed Characteristics**
- Long Life, Low Impedance.
- Non Capacitance reduction
- **Recommended items**
- NZD : -55~105°C, 5KHrs
- Cap. Tolerance : 0%~30%

### DC-DC Converter



- **Needed Characteristics**
- Long life, High Reliability
- **Recommended items**
- NXH : -40~105°C 6K~10KHrs

### EPB [Electronic Parking Brake]



- **Needed Characteristics**
- Long life, Low Imp.
- **Recommended items**
- NXP : -55~105°C, 2K~5KHrs

### Rear Blower Control Unit



- **Needed Characteristics**
- Long life, High Reliability
- **Recommended items**
- NXH : -40~105°C 6K~10KHrs

### TPMS (Tire Pressure Monitoring System)



- **Needed Characteristics**
- Long life, High Reliability
- **Recommended items**
- BLA : -40~105°C, 5KHrs
- BLH : -40~105°C 10KHrs

### IMS (Integrated Memory system)



- **Needed Characteristics**
- General character.
- **Recommended items**
- NHA : -40~105°C, 2KHrs
- BDS : -40~105°C, 1KHrs

### Cluster



- **Needed Characteristics**
- General character.
- **Recommended items**
- BDS : -40~105°C, 1KHrs

### ESC (Electric Suspension Controller)



- **Needed Characteristics**
- High Temp., Reliability
- **Recommended items**
- CLZ : -40~125°C, 1K ~ 5Krs

### SMK (Smart Key ECU)



- **Needed Characteristics**
- Low Impedance, High cap.
- **Recommended items**
- BXQ : -55~105°C, 2Krs

### EPB (Electronic Parking Brake)

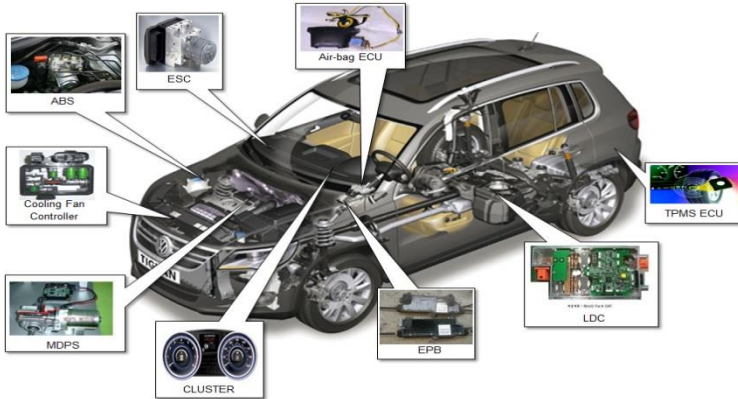


- **Needed Characteristics**
- Low Impedance, High cap.
- **Recommended items**
- NXP : -55~105°C, 2K~5KHrs



# 8. Automotive

## AEC-Q200 !



SET

- INTERIOR
- CLUSTER, Air-Bag, EPB, AVN, CAR AUDIO Smart Key ECU and ETC

RADIAL

- Low ESR, Downsized(105°C)

NXL

- 105°C/2,000~5,000Hrs

NXP

- 105°C, /2,000~5,000Hrs
- Low ESR, Downsized, High Ripple

NXR

- 105°C, /4,000~5,000Hrs
- Low ESR, Downsized, High Ripple(30%↑)

SET

- INTERIOR
- CLUSTER, Air-Bag, EPB, AVN, CAR AUDIO Smart Key ECU and ETC

SMD

- Low ESR, Downsized(105°C)
- Recommended to use Anti-vibration E-cap over 8X10 size

BXJ

- 105°C/2,000~5,000Hrs

BXF

- 105°C, /2,000Hrs
- Low ESR, High Ripple(30%↑)

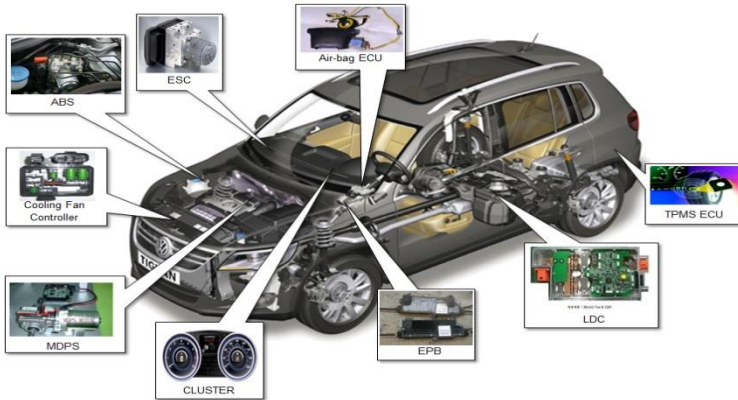
BXQ

- 105°C, /2,000Hrs
- Downsized



# 8. Automotive

## AEC-Q200 !



**SET** •ENGINE : MDPS, ABS, ENGINE ECU, FAN and ETC

**SMD** •Low ESR, Downsized(125℃)  
•Recommended to use Anti-vibration E-cap over 8X10 size

- CLZ** •125℃/1,000~5,000Hrs
- CLX** •125℃, /2,000~4,000Hrs  
•Low ESR, High Ripple
- CLS** •125℃, /2,000Hrs  
•Low ESR, Downsized

**SET** •ENGINE : MDPS, ABS, ENGINE ECU, FAN and ETC

**RADIAL** •Low ESR, Downsized(125~135℃)

- PXB** •125℃/2,000~5,000Hrs
- PXD** •135℃, /2,000~5,000Hrs  
•Low ESR, High Ripple
- PFA** •135℃, /2,000~3,000Hrs



## 9. Social contribution

### Social contribution

- Samsung scholarship foundation has been providing scholarship and voluntary services since 1984





# 9. Social contribution

## Environmental Policy

### Clients and environment are priority



[ Environmental Policy ]

Samyoung Electronics, as a leading company producing e-cap, propose the Environmental Policies in order to make better life and future based on Human and Environment below.

1. Involving production progress, all performance and service are improved by environmental control continuously.
2. Considering environmental R&D and design, Samyoung Electronics preoccupy the market through the environmental friendship products'
3. We insist on "zero" causing a pollutant for clean job place and environment.
4. We fulfill the regulation of domestic and international law and customer's standard.
5. We positively chase the saving energy and re-using / recycling the resource to reduce the carbon dioxide so that we can reduce green-house gases.

Samyoung Electronics all employee announce to preserve KSA 14001/ISO 14001 regulation for clean earth environment and to be a leading company of environmental friendship.

2016. 06. 01.

SamYoung Electronics Co.,Ltd. President Dae-Ho Kim



삼영전자공업주식회사

