

Power Electronics Applications

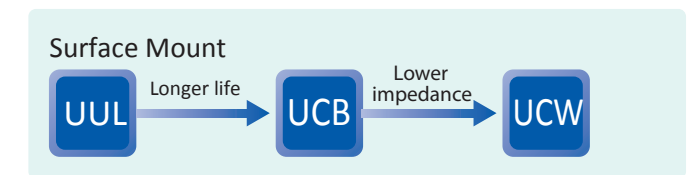
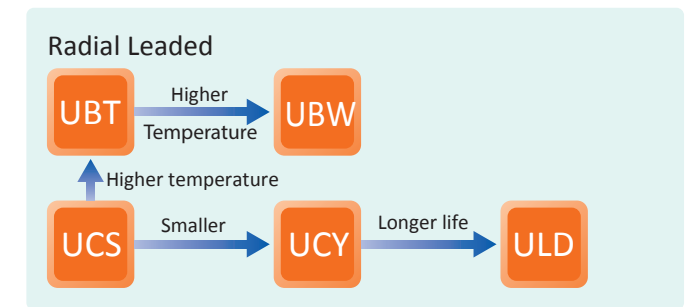
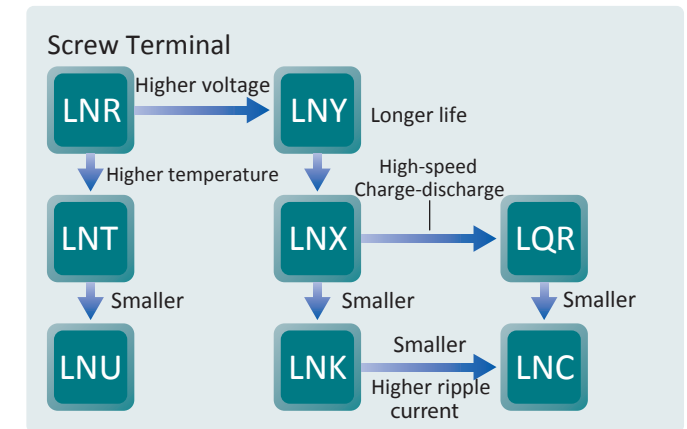
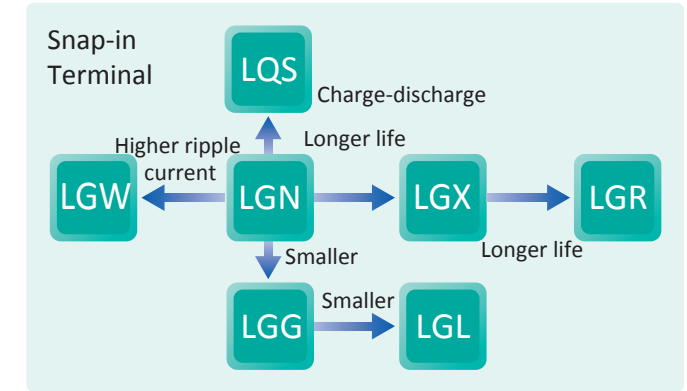


Recommended Series for Use in Power Electronics

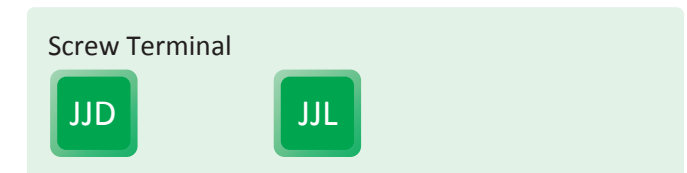
| | Aluminum Electrolytic Capacitors | | Film Capacitors | Electric Double Layer Capacitors |
|---|----------------------------------|---------------------------|-------------------------|----------------------------------|
| | Snap-in terminal type | Screw terminal type | | |
| Power industry Markets: transformers for power generation, smart grids Underlying technology: Long life , High voltage , High capacity | LGX LGN | LNC LNU | EU ER | JJD JJL |
| Factory Automation Markets: servo systems, press processing equipment Underlying technology: High voltage , High ripple current , High-speed charge/discharge | LGW LQS | LNC LQR | EB EF | JJD JJL |
| Logistics and Transportation Markets: electric rail equipment, high-speed chargers Underlying technology: Long life , High capacity , High-speed charge/discharge | LGX LGW | LNC LNU | EU ER | JJD JJL |
| Infrastructure Markets: UPS, telecommunication base stations Underlying technology: Long life , High capacity , High-speed charge/discharge | LGL LGR | LNC LNK | EF EM | JJD JJL |

Power Electronics Capacitor Series Diagram

Aluminum Electrolytic Capacitors



Electric Double Layer Capacitors



Optimizing Your Capacitor Choices

| Product Types | Dry film capacitors | Comparison | Aluminum electrolytic capacitors |
|---|-------------------------|------------|----------------------------------|
| Performance categories | | | |
| High voltage | Customizable | > | - 630V (NX Series) |
| Maximum allowable working temperature | 105°C | — | 105°C |
| Capacitance range | Narrow | < | Wide |
| Capacity unit price | High | < | Inexpensive |
| Capacity tolerance | ±3% to ±10% | > | ±10% to ±20% |
| Loss temperature/frequency response characteristics | Low rate of variability | > | High rate of variability |
| Ripple current durability | Large | > | Small |
| Liquid Electrolyte | Not used | — | Used |
| Shape | Flexible | — | Basic shape is circular |
| Polarity | Non-polar | — | Generally polarized |

Film Capacitors

Resin-molded Case



Cylindrical Case



Rectangular Metal Case



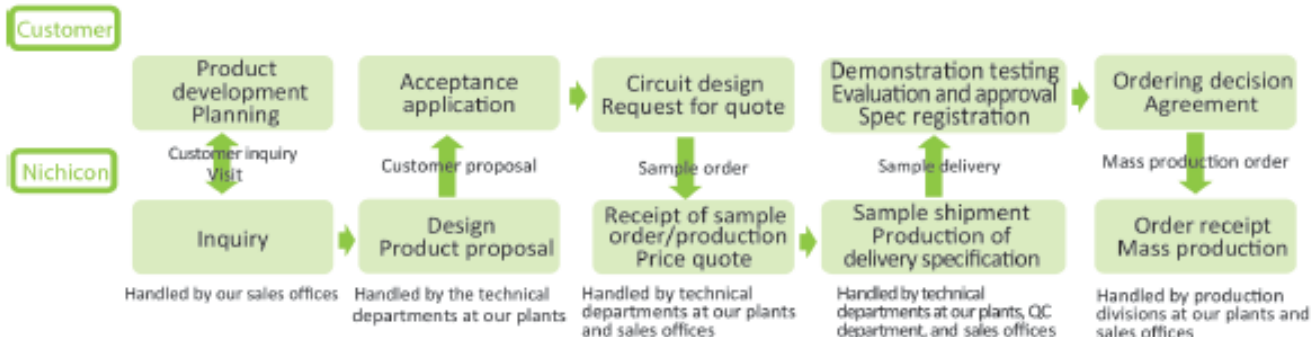
Production By Country

| | Snap-in terminal type aluminum electrolytic capacitors | Screw terminal type aluminum electrolytic capacitors | Radial leaded type electrolytic capacitors | Surface mount type electrolytic capacitors | Electric double layer capacitors | Conductive polymer aluminum solid electrolytic capacitors | Film capacitors |
|----------|--|--|--|--|----------------------------------|---|-----------------|
| Japan | ● | ● | ● | ● | ● | ● | ● |
| China | ● | ● | ● | ● | ● | ● | |
| Malaysia | ● | | ● | ● | | | |

Note: Please confirm when ordering because manufacturing locations or part availability may change.

Standard Process for Custom Product Development

We offer products optimized to meet our customers' application, size and other design needs.



Note: Please confirm product development details with your local sales representative or Nichicon (America) Corporation

NICHICON CORPORATION

<http://www.nichicon.co.jp/> <http://www.nichicon.com>

HEAD OFFICE

Karasumadori Oike-agaru, Nakagyo-ku, Kyoto, 604-0845 Japan
 TEL.81-75-231-8461 FAX.81-75-256-4158

NICHICON (AMERICA) CORP.

927 East State Parkway, Schaumburg, Illinois 60173, U.S.A.
 TEL.1-847-843-7500 FAX.1-847-843-2798
 sales@nichicon-us.com

NICHICON (AUSTRIA) GmbH

Businesspark Maximum, Modecenterstrasse 17, Unit 2-7-A,
 1110 Vienna, Austria
 TEL.43-1-706-7932 FAX.43-1-706-7933

U.K.OFFICE

4.3 Frimley Business Park, 1A Frimley,
 Camberley, Surrey GU16 7SG, United Kingdom
 TEL.44-1276-405500 FAX.44-1276-686531



facebook.com/nichiconUS



@nichiconUS



youtube.com/nichiconUS



SAFETY PRECAUTIONS

• PRIOR TO ORDERING PRODUCT PLEASE OBTAIN A COPY OF THE SPECIFICATION AND USE THIS SPECIFICATION AS A BASIS WHEN DESIGNING EQUIPMENT AND INCORPORATING OUR PRODUCT. NICHICON ADMITS NO LIABILITY FOR EQUIPMENT PROBLEMS DUE TO THE LACK OF PRODUCT SPECIFICATIONS BEING CONFIRMED.

NOTE:

- SPECIFICATIONS AND DIMENSIONS IN THIS CATALOG ARE SUBJECT TO CHANGE WITHOUT NOTICE. IF NECESSARY, DRAWINGS CAN BE PROVIDED.
- OTHER THAN THE EXPRESS WRITTEN SPECIFICATIONS CONTAINED IN NICHICON'S CATALOG OR OTHER NICHICON LITERATURE, NICHICON MAKES NO WARRANTY, EXPRESS IMPLIED, OR OTHERWISE, IN CONNECTION WITH THESE PRODUCTS, AND ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PRODUCT, ARE DISCLAIMED. NICHICON SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, CUSTOMER'S SOLE REMEDY IN THE EVENT THAT NICHICON'S SPECIFICATIONS ARE NOT MET IS TO REPAIR, REPLACE, OR REFUND THE PURCHASE PRICE OF THE SUBJECT PRODUCT AT NICHICON'S OPTION.
- CATALOG PRINTED IN OCT. 1, 2014