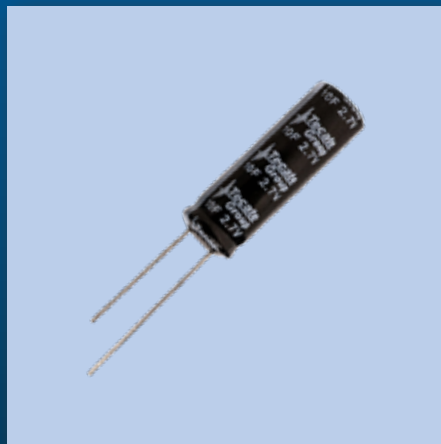


# **Tecate Group**

*Power, Performance, Solutions*



*At Tecate Group, we pride ourselves on simplifying complex energy-storage requirements by combining our technical knowledge and design flexibility to deliver high-quality components and modular product solutions that exceed expectations.*

## 3V Ultracapacitor



- Cylindrical package
- Radial wire lead (4 ~ 100F)
- Radial snap-in lead (100 ~ 450F)
- Axial lead (650 ~ 3,000F)
- UL recognized

## 3.8V LIC



- Cylindrical package
- Radial wire lead
- TPLC: 10 ~ 450F
- TPLCE: 3 ~ 1400F
- High energy density
- Low self-discharge
- UL recognized

## 2.5V Ultracapacitor



- Prismatic package
- Thin form factor = 4.8mm
- Radial wire lead (4F, 10F)
- 4F, 10F
- Hermetic seal
- 5V, 2F module available

## 2.7V Ultracapacitor



- Cylindrical package
- Radial wire lead (0.5 ~ 120F)
- Radial snap-in lead (100 ~ 800F)
- Axial lead (650 ~ 3,000F)
- UL recognized

## PBL/PBLL 5.0/5.4V

- 0.25 ~ 15F
- Balancing option: passive, and NB (low leakage)
- Radial leaded with wire lead and connector options
- Custom capacitance and voltage options
- UL recognized



## PBLS 8.1 ~ 32.4V

- 0.5 ~ 11.25F
- Unique slim-profile design
- Wide variety of capacitance and voltage options
- Standard Molex connector 87439-0400
- Passive cell balancing and on-board thermistor



## PBL/PBD 16.2V

- 25F and 58F
- Active cell balancing
- UL-recognized cells
- Screw terminals
- Shrink sleeving or metal enclosure



## PBLH 12V

- 87F, 100F, and 112F common form factor
- Passively balanced
- UL-recognized cells
- Ruggedized plastic housing
- Lug connections



## PBLH 18 ~ 54V

- 166F and 500F
- Active balancing
- Up to 1 million duty cycles or 10-year DC life
- 18V, 48V, 51V, or 54V versions available
- Temperature output
- Fully enclosed aluminum or plastic housings
- UL recognized models available





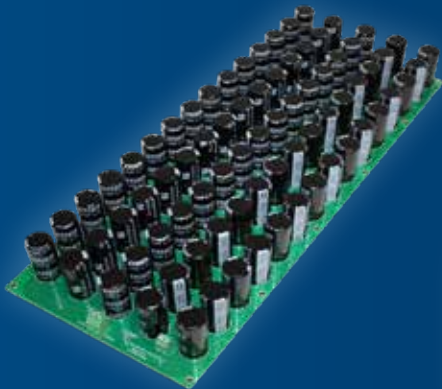
## Design

- USA-based engineering
- SolidWorks 3D modeling
- Custom PCB layouts
- Higher-level circuit integration
- UL810-recognized cells and modules
- Build to print
- Quick-turn prototyping



## Cells

- Cylindrical and prismatic
- Custom sizes and capacitances available
- 2.3V @ 85°C and 105°C
- 2.7V and 3.0V @ 65°C
- 2.7V @ 85°C
- 0.33F to 3000F
- Low ESR



## Interconnect

- Custom wire harnesses with customer-specified connectors
- Various wire lengths, gauges, and colors
- Connectors or stripped and tinned leads
- Custom oversleeving for ease of wire routing
- Secondary wire harnesses for board location flexibility



## Packaging

- Shrink sleeving
- Molded plastic and metal enclosures
- Epoxy potted modules
- Unique form factor for space-constrained applications



## Board-Level Assemblies

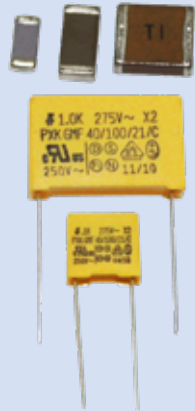
- Surface-mount and through-hole
- PCB sub-assemblies
- Audio crossover networks
- Speaker input assemblies
- Box build and final product assemblies



Capabilities include custom metal stamping and plastic injection molding

## Specialty

- Safety certified:
  - X2 Box film, 275 and 305VAC
  - X2 and Y1/Y2 SMT ceramics
- High voltage
- Arc protection
- Telecom tip & ring
- Snubber capacitor
- Hybrid conductive polymer
- Flexible termination SMT large geometry



**Surface Mount, Radial**

## Aluminum Electrolytic

- 0.1 ~ 82000 $\mu$ F, 4 ~ 500V
- -55 ~ +130°C
- Up to 12000-hour life
- Polar, non-polar
- General purpose
- Low leakage
- Low ESR



**Surface Mount, Radial, and Snap-In**

## Services

### Binning Capabilities

- Proprietary testing algorithms
- Multiple readings on each device to ensure no out-of-bin failures
- Bin range down to 0.1%
- Bin tolerance of  $\pm 0.05\%$
- Up to 100 bins

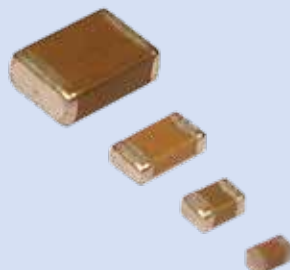


### Matched Pairs

- Pairs of capacitors matched to within 0.002 to 0.005%
- Each pair delivered in a single bag with a unique serial number and capacitance reading for each capacitor in the pair
- Original readings kept electronically

## Ceramic

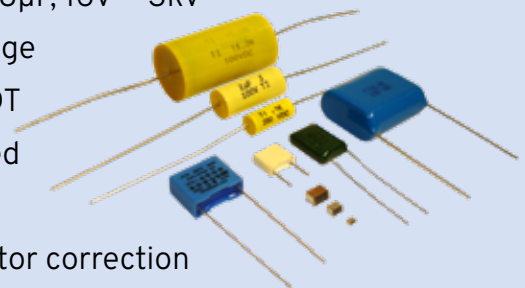
- 0.4pF ~ 220  $\mu$ F, 4V ~ 6kV
- General purpose
- Tip & ring
- Safety certified
- Arc protection
- High voltage
- RF/microwave
- Flexible termination



**Surface Mount, Axial, Radial, and Disc**

## Film

- 330pF ~ 18 $\mu$ F, 16V ~ 3kV
- High voltage
- High DV/DT
- Segmented
- Motor run
- Power factor correction
- PET, PPS, PEN, polypropylene film & foil metallized, and combination



**Surface Mount, Axial, and Radial**

**Tecate Group** is based in San Diego, California and has been supplying global customers for over 50 years.

## Markets



ISO 9001:2015 Registered



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