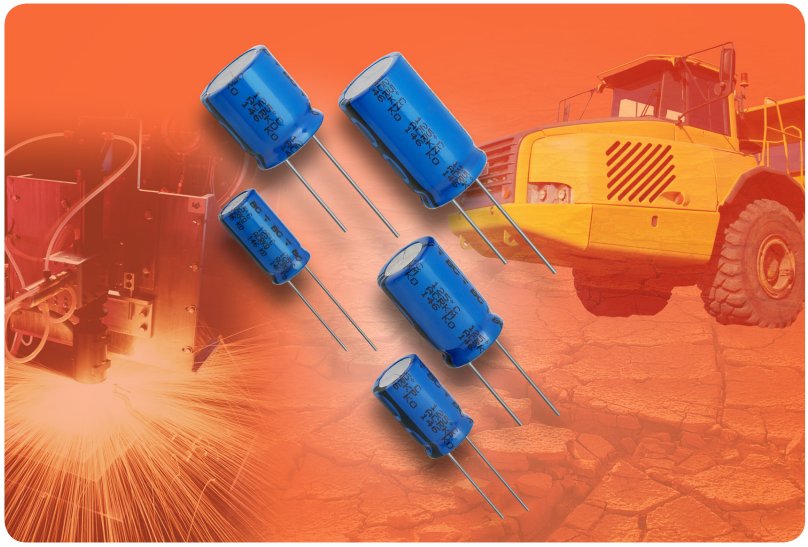
ALUMINUM ELECTROLYTIC CAPACITORS

160 RLA

Aluminum Electrolytic Capacitors
Radial, Enhanced High Temperature, Low Impedance



KEY BENEFITS

- Enhanced high temperature range: up to 150 °C
- AEC-Q200 qualified
- Very low impedance down to 0.023 Ω (at 20 °C, 100 kHz)
- Highest ripple currents up to 2000 mA (at 150 °C, 100 kHz)
- Long useful life: up to 2000 h at 150 °C

APPLICATIONS

- Equipment operating in high-temperature or harsh environments
- Industrial applications:
  - Advanced SMPS
  - Automation systems
  - Equipment for renewable energy
  - Industrial LED applications
- Automotive applications:
  - Electronic brake systems
  - Circuits close to gears or engines
  - Safety and long-life circuits (airbag, crash control, etc.)

RESOURCES

- Datasheet: 160 RLA - www.vishay.com/doc?28420
- For technical questions contact aluminumcaps1@vishay.com
- Material categorization: for definitions please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE

Pb-free

RoHS COMPLIANT

A WORLD OF SOLUTIONS

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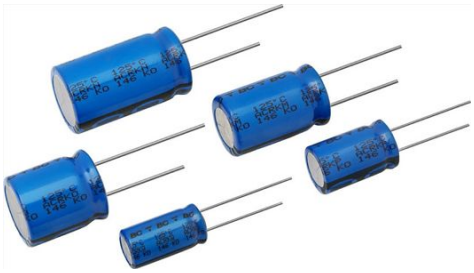

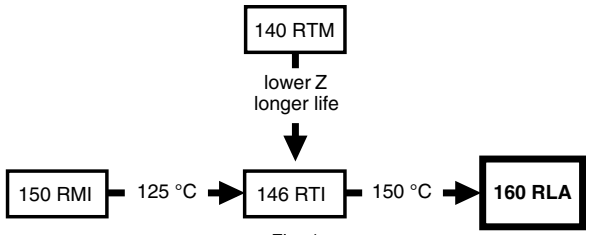

Fig. 1

FEATURES

- Useful life: up to 2000 h at 150 °C
- High stability, high reliability
- Very low ESR
- AEC-Q200 qualified
- Excellent ripple current capability
- Polarized aluminum electrolytic capacitors, non-solid electrolyte
- Radial leads, cylindrical aluminum case with pressure relief, insulated with a blue PET sleeve
- Charge and discharge proof
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

APPLICATIONS

- Power supplies (SMPS, DC/DC converters) for industrial, automotive, telecommunications and military
- Smoothing, filtering and buffering

MARKING

The capacitors are marked (where possible) with the following information:

- Rated capacitance (in µF)
- Tolerance on rated capacitance, code letter in accordance with IEC 60062 (M for ± 20 %)
- Rated voltage (in V)
- Date code, in accordance with IEC 60062
- Code indicating factory of origin
- Logo of manufacturer
- Upper category temperature (150 °C)
- Negative terminal identification
- Series number (160)

QUICK REFERENCE DATA	
DESCRIPTION	**VALUE**
Nominal case sizes (Ø D x L in mm)	10 x 12 to 18 x 35
Rated capacitance range, C_R	33 µF to 3300 µF
Tolerance on C_R	± 20 %
Rated voltage range, U_R	16 V to 50 V
Category temperature range	-55 °C to +150 °C
Endurance test at 150 °C	1000 h to 1500 h
Useful life at 150 °C	1000 h to 2000 h
Useful life at 40 °C, 1.8 x I_R applied	200 000 h
Shelf life at 0 V, 150 °C	1000 h
Based on sectional specification	IEC 60384-4 / EN130300
Climatic category IEC 60068	55/150/56

SELECTION CHART FOR C_R, U_R, AND RELEVANT NOMINAL CASE SIZES (Ø D x L in mm)

C_R (µF)	U_R (V)			
	16	**25**	**35**	**50**
33	→	→	→	10 x 12
47	→	→	10 x 12	10 x 12
100	→	10 x 12	10 x 16	10 x 16
220	10 x 16	12.5 x 20	12.5 x 20	10 x 20
330	10 x 20	12.5 x 25	12.5 x 25	12.5 x 20
470	12.5 x 20	16 x 25	18 x 20	12.5 x 25
680	12.5 x 25	→	16 x 31	16 x 25
1000	16 x 25	16 x 31	18 x 35	18 x 31
1500	18 x 20	18 x 31	-	-
2200	18 x 25	-	-	-
2700	18 x 31	-	-	-
3300	18 x 35	-	-	-

Revision 01-Apr-16