

New 80V of HVK , 125deg C,4000h Development of Surface Mount Type (SMD)  
Conductive Polymer Hybrid Aluminum Electrolytic Capacitors

ELNA has recently developed “conductive polymer hybrid aluminum electrolytic capacitors” which combined advantages of both aluminum electrolytic capacitors and conductive polymer capacitors. This new product incorporated the hybrid electrolyte that blended electrolytic solution (liquid) with conductive polymer (solid) using the unique electrolyte technology we had long been building up. At this time 80V of HVK series , 125deg C, 4000h was added.

Features:

1) Low ESR, High ripple current

Use of the hybrid electrolyte that blended electrolytic solution with conductive polymer realized low ESR and high ripple current equivalent to those of conductive polymer capacitors.

2) Low leakage current

Use of the hybrid electrolyte that blended electrolytic solution with conductive polymer realized low leakage current equivalent to that of aluminum electrolytic capacitors.

3) High temperature, long life

Use of the technologies to lower evaporation of electrolytic solution by hybrid electrolyte and to reduce thermal deterioration by conductive polymer realized guaranteed 4000 hours at 125deg C and 5000 hours at 105deg C.

The above features 1) and 3) will contribute to

- Compact, lightweight and reduced numbers of: automotive equipment such as power supplies of automotive engine ECU (Electronic Control Unit) and various motor ECUs; and DC/DC converters and switching power supplies for the set requiring high withstand voltage and high reliability
- Long life, high reliability and maintenance-free operation for the set

The above feature 2) will contribute to reduction in power consumption and stability in operation for various devices because in automotive power supplies, leakage current of capacitors may increase the dark current in some circuits during an engine stop.

## Specifications

Size (D×L)	8.0mm×10.0mm , 10.0mm×10.0mm
Endurance	125deg C 4000hours
Category temperature range	-55 to 125deg C
Rated voltage range	80V
Capacitance range	22 , 33u F
ESR	45 , 35mohm(100kHz/20deg C)
Rated ripple current	1100 , 1200mA(100kHz/125deg C)
Leakage current	Less than 0.01CV or 3μA whichever is larger. (Rated voltage applied, after 2 min.)

Data Sheet : HVK series [http://www.elna.co.jp/en/capacitor/new/pdf/hvk80v\\_e.pdf](http://www.elna.co.jp/en/capacitor/new/pdf/hvk80v_e.pdf)

