

CHIP CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS.

- Series **HVK** Vertical Chip Conductive Polymer Hybrid Aluminum Electrolytic Capacitors.
- For surface mount 125 deg C, 4000 hours guaranteed.
- RoHS Compliant. AEC-Q200 Compliant.
- New P/N : **RAHVK471M1TFK5002X3** (Old P/N : HVK-25V471MHC5X3Q-R2)

Spec sheet

XHQ-P-B26X3Q

Item	Performance	
Category temperature range (deg C)	-55 to +125	
Rated Voltage (V)	25	
Rated Capacitance (uF)	470 (20deg C,120Hz)	
Tolerance at rated capacitance (%)	-20 to +20 (20deg C,120Hz)	
Leakage current (uA)	Less than 118uA (25V after 2minutes) (20deg C)	
Tangent of loss angle (max.)	Rated voltage (V)	25
	Tangent of loss angle	0.14 (20deg C,120Hz)
ESR (mohm max.)	ESR	16 (20deg C,100kHz)
Rated ripple current (mArms)	Rated Ripple Current	3000 (125deg C,100kHz)
Endurance(125deg C) (Applied ripple current)	Test time	4000 hours
	Leakage current	The initial specified value or less
	Capacitance change	Within -30% to +30% of initial value
	Tangent of loss angle	200% or less of the initial specified value
	ESR	200% or less of the initial specified value
Shelf life(125deg C)	Test time	1000 hours
	Leakage current	The initial specified value or less
	Capacitance change	Within -30% to +30% of initial value
	Tangent of loss angle	200% or less of the initial specified value
	ESR	200% or less of the initial specified value
Voltage application treatment		

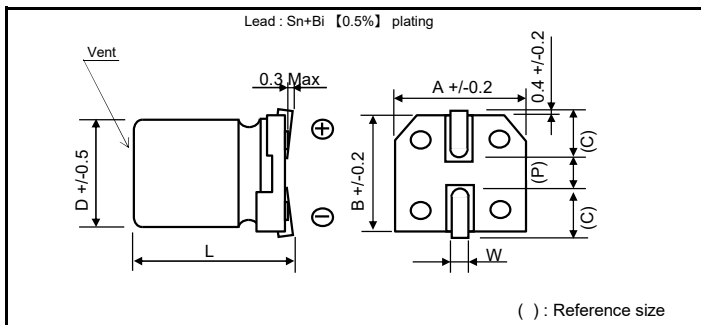
Part numbering system

R	A	HVK	471	M	1T	FK5	002	X3
Product group Electrolytic capacitor	Category For automotive AEC-Q200	Series code	Rated capacitance code	Capacitance tolerance code	Rated voltage code	Case size code	Taping and packing code	Additional code

Coefficient of Frequency for Rated Ripple Current

Rated capacitance(uF)	Frequency(Hz)	120	1k	10k	100k
470		0.10	0.30	0.60	1.00

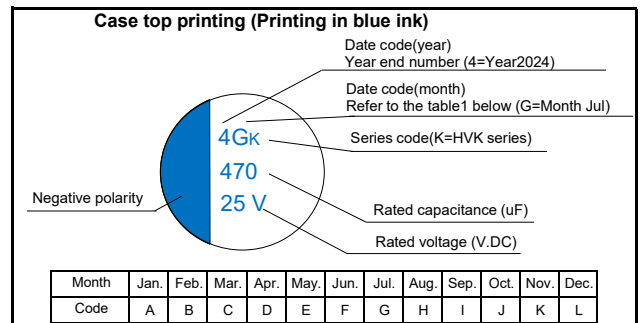
Outline drawing



Unit : mm

D	L	A	B	C	W	P
10	12.5 +/-0.5	10.4	10.4	3.3	0.7 to 1.1	4.7

Marking



Weight : 1.8g

*Weight of item isn't guaranteed.

(Note) It is recommended that you shall obtain technical specifications from ELNA CO., LTD to ensure that the component is suitable for your intended use.

ELNA CO., LTD.

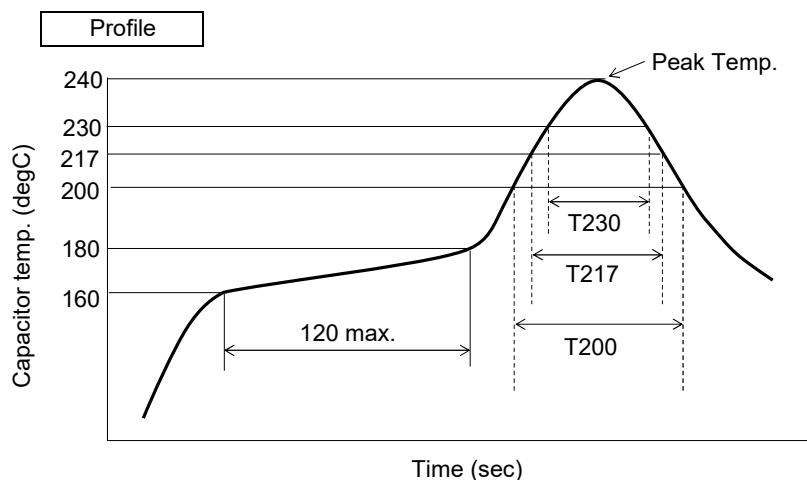
<http://www.elna.co.jp/>

Kyobashi East Bldg., 2-7-19, Kyobashi, Chuo-ku, Tokyo 104-0031, Japan

TEL:03-4221-4950 FAX:03-4221-4951

CHIP CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS.
(1) Soldering iron conditions

Iron tip temperature shall be 400degC +5/-5degC within the duration of 3 +1/-0 seconds.

(2) Reflow soldering conditions


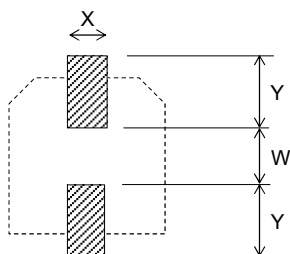
T200: Duration while capacitor head temperature exceeds 200 degC(sec)

T217: Duration while capacitor head temperature exceeds 217 degC(sec)

T230: Duration while capacitor head temperature exceeds 230 degC(sec)

The measurement temperature point is the case top.

Pre heat	Peak temp. (degC)	Peak temp.	T200 (sec)	T217 (sec)	T230 (sec)	reflow cycle
160 to 180 degC 120sec max	240 max	5sec or less	60 max	50 max	40 max	2 times or less

■ Recommended land pattern size


X	Y	W
2.5	4.0	4.0

Unit : mm

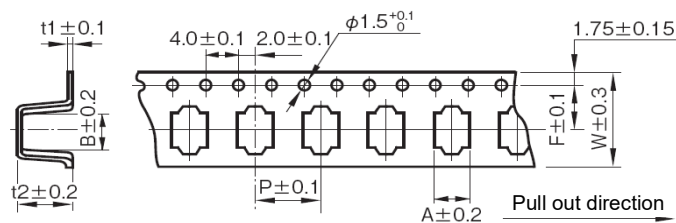
Recommended Solder Paste Thickness : 0.20mm

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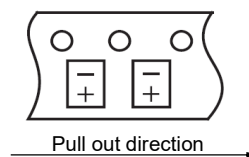
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■ Tape and Reel

(1)Carrier Tape



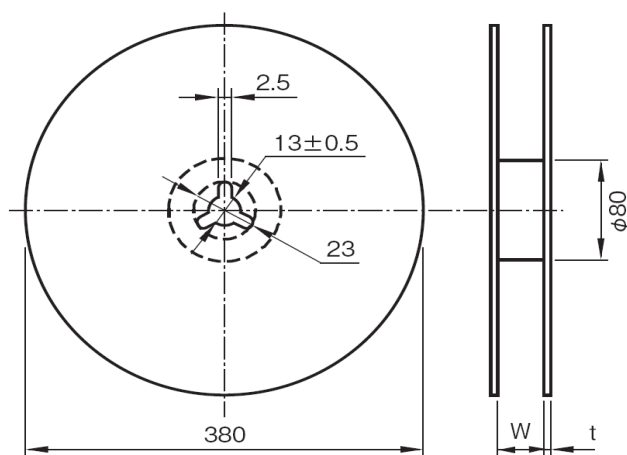
(2)Polarity



Unit : mm

W	A	B	P	t2	F	t1
24	10.7	10.7	16	13.1	11.5	0.5

(3)Reel



Unit : mm

W	t
26	3

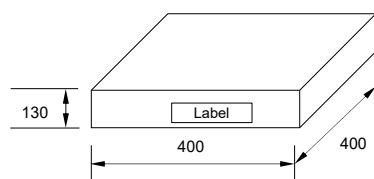
(4)Quantity

Case size	Quantity per reel
10x12.5	400 pcs

■ Packing specification

(1)Inner box

Unit : mm



(2)Packing quantity

Case size	Quantity per inner box
10x12.5	1600 pcs

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