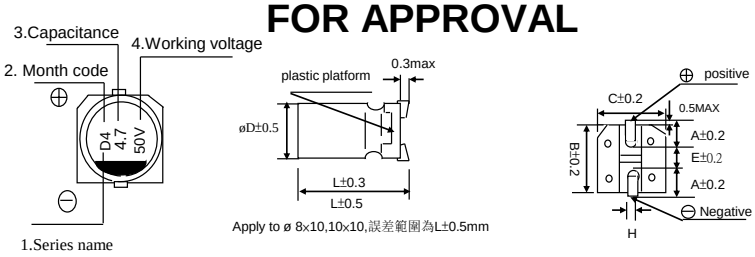
Dongguan Heyue Electronics Co., Ltd

DIMENSIONS(mm)

■ Chip Type

FOR APPROVAL



ΦD	4*5.4	5*5.4	6.3*5.4	6.3*6	6.3*7.7	8*10	10*10
A	1.8	2.1	2.4	2.4	2.4	2.9	3.2
B	4.3	5.3	6.6	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	2.2	3.1	4.5
L	5.4	5.4	5.4	6.0	7.7	10	10
H	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8	0.8~1.1	0.8~1.1

Customer:	**Electrolytic Capacitors HD Series**	Heyue **Code**

Electric Characteristics:

P/N	Heyue P/N	Cap. (uF)	Cap. Tol. (%)	Rate Volt. (V-DC)	Surge Volt. (V-DC)	Oper. Temp. (℃)	Nominal Case Size D*L(mm)	Leakage Current Max (uA)	D.F. MAX (%)	R.C 100KHz (mA rms)	IMP 100KHz at 25℃(Ω)Max	Load Life (hours)
	HD1E100M0405VG-A	10	±20	25	28.7	105	4*5.4	2.5	16	80	2.0	2000

REMARKS:

1. Leakage Current Test: **6.3V ~100V at 20℃ for 2 minutes ;**

2. Operating temperature: **6.3V~100V -55℃~ +105℃ ;**

3. .Dissipation Factor Test: **at 20℃, 120 Hz.**

4. Capactitance Test: **at 20℃, 120 Hz.**

5. Ripple Current Test: **at 105℃, 100K Hz ;**

6. Load Life: **3000 hours, with application of rated voltage at 105℃.**
(L<10mm, 2000 hours;)

Capacitance Change: **Within ±30% of initial value;**

tanδ: **300% or less of initial specified value;**

Leakage Current: **Initial specified value or less;**

7. Shelf Life: **The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1000 hours 105℃ without voltage applide. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.**

Capacitance Change: **Within ±30% of initial value;**

tanδ: **300% or less of initial specified value;**

Leakage Current: **Initial specified value or less;**

8. when have characteristic requested : **Load life & shelf life test and etc. , judgment standard reference to our catalogue.**

9.Remarks: **Heyue Part Number with suffix code "A" is specially offered for automotive project, which meets AEC-Q200 standard.**

●SPECIFICATION

Leakage Current 洩漏電流	After 2 minutes application of rated voltage,leakage current is not more than 0.01cv or 3(uA),whichever is greater.								
Dissipation Factor 散逸因素（損失角） (tan δ)	Measurement Frequency:120Hz. Temperature:20℃								
	Rate Voltage(V)	6.3	10	16	25	35	50	63	80	100
	tan δ （MAX)	0.30	0.26	0.22	0.16	0.13	0.10	0.08	0.08	0.07
Low Temperature Stability 低溫特性 Impedance Ratio(MAX) 阻抗比率(MAX)	Measurement Frequency:120Hz.								
	Rate Voltage(V)	6.3	10	16	25	35	50	63	80	100
	Z(-25℃)/Z(20℃)	4	3	2	2	2	2	2	2	2
	Z(-55℃)/Z(20℃)	8	5	4	3	3	3	3	3	3

●Frequency Coefficient of Permissible Ripple Current

Frequency(Hz)	120 ≦ F< 1K	1K ≦ F< 10K	10K ≦ F< 100K	100K≦ F
≦33	0.35	0.70	0.90	1.00
33~150	0.40	0.85	0.92	1.00
>150	0.60	0.85	0.95	1.00

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5℃ rise.
When long life performance is required in actual use, the rms ripple current has to be reduced.