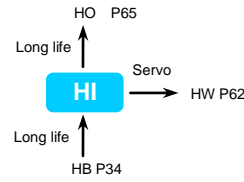


# HI SERIES



- Long life version of HI series
- Endurance with ripple current: 5000hours at 105℃
- Rated voltage range: 160V-550V
- Ideal for switching power and inverter smoothing capacitors



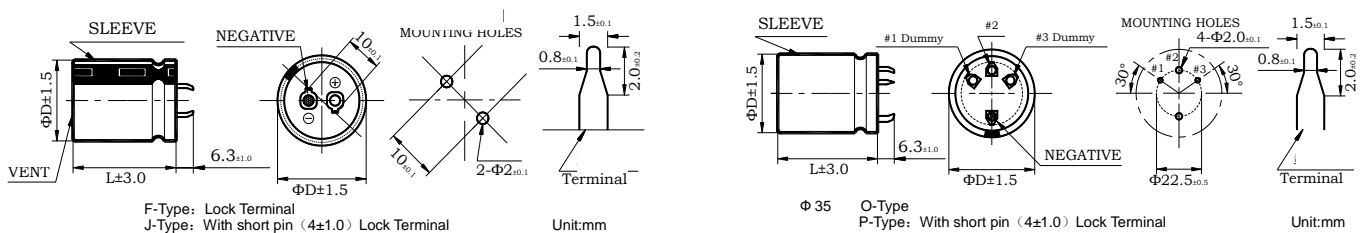
## ◆ SPECIFICATIONS

Items	Characteristics																
Operating Temperature Range	-25~+105℃																
Rated Working Voltage Range	160~550V																
Capacitance Tolerance	±20% (20℃, 120Hz)																
Dissipation Factor (MAX) 20℃, 120Hz	<table border="1"> <tr> <td>U<sub>R</sub>(V)</td> <td>160</td> <td>200</td> <td>250</td> <td>315</td> <td>350</td> <td>400</td> <td>450-550</td> </tr> <tr> <td>tanδ</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.18</td> <td>0.18</td> <td>0.18</td> <td>0.20</td> </tr> </table>	U <sub>R</sub> (V)	160	200	250	315	350	400	450-550	tanδ	0.15	0.15	0.15	0.18	0.18	0.18	0.20
U <sub>R</sub> (V)	160	200	250	315	350	400	450-550										
tanδ	0.15	0.15	0.15	0.18	0.18	0.18	0.20										
Impedance Ratio (MAX) 120Hz	<table border="1"> <tr> <td>U<sub>R</sub>(V)</td> <td>160</td> <td>200</td> <td>250</td> <td>315</td> <td>350</td> <td>400</td> <td>450-550</td> </tr> <tr> <td>Z<sub>-25℃</sub>/Z<sub>+20℃</sub></td> <td>4</td> <td>4</td> <td>4</td> <td>7</td> <td>7</td> <td>7</td> <td>8</td> </tr> </table>	U <sub>R</sub> (V)	160	200	250	315	350	400	450-550	Z <sub>-25℃</sub> /Z <sub>+20℃</sub>	4	4	4	7	7	7	8
U <sub>R</sub> (V)	160	200	250	315	350	400	450-550										
Z <sub>-25℃</sub> /Z <sub>+20℃</sub>	4	4	4	7	7	7	8										
Leakage Current (MAX)	I=0.01C <sub>R</sub> U <sub>R</sub> or 1.5mA whichever is minimum. (at 20℃, After 5 minutes application of rated voltage) I=Leakage Current(µA)      U <sub>R</sub> =Rated Voltage(V)      C <sub>R</sub> =Rated Capacitance(µF)																

	Useful Life		Load Life	Endurance Test	Shelf Life
Life Time	7000h	>200000h	5000h	5000h	1000h
Leakage Current	≤ Specified value		≤ Specified value	≤ Specified value	≤ Specified value
tanδ Change	≤300% of specified value		≤200% of specified value	≤200% of specified value	≤200% of specified value
Capacitance Change	Within ±30% of initial value		Within ±20% of initial value	Within ±20% of initial value	Within ±20% of initial value
Condition Applied Voltage Applied Ripple Current Applied Temperature Failure Rate Level	U <sub>R</sub> I <sub>R</sub> 105℃ ≤1% Failure rate	U <sub>R</sub> 1.6×I <sub>R</sub> 40℃ ≤1% Failure rate	U <sub>R</sub> I <sub>R</sub> 105℃ 0%	U <sub>R</sub> I <sub>R</sub> =0 105℃ 0%	U <sub>R</sub> =0 I <sub>R</sub> =0 105℃ 0% Back up to 20℃ and placed more than 24 hours. U <sub>R</sub> to be applied for 60 min before measurement.

## ◆ Dimensions

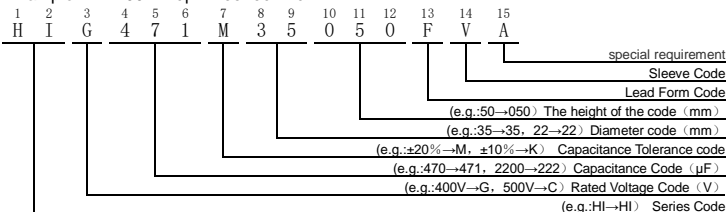
### ● Terminal Code



● Please ask for advice for other sizes.

## ◆ PART NUMBER SYSTEM

● Example HI 400V470µF Φ35×50 ±20%



## ◆ Rated Ripple Current Multiplies

### ● Frequency coefficient

Rated voltage (v)	Frequency (Hz)				
	50 (60)	100 (120)	300	1k	≥10k
160~250VV	0.80	1.00	1.17	1.32	1.45
315~550VV	0.80	1.00	1.16	1.30	1.41

### ● Temperature coefficient

Rated voltage (v)	Temperature (℃)				
	+40	+55	+70	+85	+105
160~550VV	2.7	2.5	2.1	1.7	1.0

# HI SERIES

◆ Standard Ratings

WV <sub>DC</sub> (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20°C/120Hz	Ripple Current 105°C/120Hz (Arms)	Catalog Part Number
160 (200)	270	22×25	0.15	1.10	HIN271M22025□VA
	330	22×30	0.15	1.20	HIN331M22030□VA
	330	25×25	0.15	1.18	HIN331M25025□VA
	390	22×35	0.15	1.30	HIN391M22035□VA
	390	25×30	0.15	1.29	HIN391M25030□VA
	390	30×25	0.15	1.32	HIN391M30025□VA
	470	22×35	0.15	1.40	HIN471M22035□VA
	470	25×30	0.15	1.39	HIN471M25030□VA
	470	30×25	0.15	1.42	HIN471M30025□VA
	560	22×40	0.15	1.50	HIN561M22040□VA
	560	25×30	0.15	1.48	HIN561M25030□VA
	560	30×25	0.15	1.49	HIN561M30025□VA
	680	22×45	0.15	1.70	HIN681M22045□VA
	680	25×35	0.15	1.68	HIN681M25035□VA
	680	30×30	0.15	1.69	HIN681M30030□VA
	820	25×40	0.15	2.00	HIN821M25040□VA
	820	30×35	0.15	2.06	HIN821M30035□VA
	1000	25×45	0.15	2.20	HIN102M25045□VA
	1000	30×35	0.15	2.15	HIN102M30035□VA
	1000	35×30	0.15	2.20	HIN102M35030□VA
1200	25×50	0.15	2.30	HIN122M25050□VA	
1200	30×40	0.15	2.28	HIN122M30040□VA	
1200	35×35	0.15	2.32	HIN122M35035□VA	
1500	30×50	0.15	2.50	HIN152M30050□VA	
1500	35×40	0.15	2.48	HIN152M35040□VA	
1800	30×60	0.15	2.70	HIN182M30060□VA	
1800	35×45	0.15	2.68	HIN182M35045□VA	
2200	35×50	0.15	2.90	HIN222M35050□VA	
2700	35×60	0.15	3.15	HIN272M35060□VA	
200 (250)	220	22×25	0.15	1.00	HIL221M22025□VA
	270	22×30	0.15	1.10	HIL271M22030□VA
	270	25×25	0.15	1.08	HIL271M25025□VA
	330	22×30	0.15	1.20	HIL331M22030□VA
	330	25×25	0.15	1.18	HIL331M25025□VA
	390	22×35	0.15	1.30	HIL391M22035□VA
	390	25×30	0.15	1.30	HIL391M25030□VA
	390	30×25	0.15	1.32	HIL391M30025□VA
	470	22×40	0.15	1.40	HIL471M22040□VA
	470	25×35	0.15	1.41	HIL471M25035□VA
	470	30×30	0.15	1.43	HIL471M30030□VA
	560	22×45	0.15	1.50	HIL561M22045□VA
	560	25×35	0.15	1.48	HIL561M25035□VA
	560	30×30	0.15	1.49	HIL561M30030□VA
	560	35×25	0.15	1.50	HIL561M35025□VA
	680	25×40	0.15	1.70	HIL681M25040□VA
	680	30×35	0.15	1.71	HIL681M30035□VA
	680	35×25	0.15	1.69	HIL681M35025□VA
	820	25×50	0.15	2.00	HIL821M25050□VA
	820	30×40	0.15	1.99	HIL821M30040□VA
820	35×30	0.15	2.01	HIL821M35030□VA	
1000	30×45	0.15	2.20	HIL102M30045□VA	
1000	35×35	0.15	2.17	HIL102M35035□VA	
1200	30×50	0.15	2.30	HIL122M30050□VA	
1200	35×40	0.15	2.28	HIL122M35040□VA	
1500	35×50	0.15	2.50	HIL152M35050□VA	
1800	35×60	0.15	2.70	HIL182M35060□VA	
250 (300)	220	22×30	0.15	1.10	HIJ221M22030□VA
	220	25×25	0.15	1.09	HIJ221M25025□VA

WV <sub>DC</sub> (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20°C/120Hz	Ripple Current 105°C/120Hz (Arms)	Catalog Part Number
250 (300)	270	22×35	0.15	1.11	HIJ271M22035□VA
	270	25×30	0.15	1.10	HIJ271M25030□VA
	270	30×25	0.15	1.12	HIJ271M30025□VA
	330	22×40	0.15	1.21	HIJ331M22040□VA
	330	25×35	0.15	1.22	HIJ331M25035□VA
	330	30×25	0.15	1.20	HIJ331M30025□VA
	390	22×45	0.15	1.31	HIJ391M22045□VA
	390	25×35	0.15	1.29	HIJ391M25035□VA
	390	30×30	0.15	1.29	HIJ391M30030□VA
	390	35×25	0.15	1.30	HIJ391M35025□VA
	470	25×45	0.15	1.41	HIJ471M25045□VA
	470	30×35	0.15	1.40	HIJ471M30035□VA
	470	35×30	0.15	1.41	HIJ471M35030□VA
	560	25×50	0.15	1.51	HIJ561M25050□VA
	560	30×35	0.15	1.49	HIJ561M30035□VA
	560	35×30	0.15	1.50	HIJ561M35030□VA
	680	30×45	0.15	1.71	HIJ681M30045□VA
	680	35×35	0.15	1.70	HIJ681M35035□VA
	820	30×50	0.15	2.01	HIJ821M30050□VA
	820	35×40	0.15	2.00	HIJ821M35040□VA
1000	35×45	0.15	2.21	HIJ102M35045□VA	
1200	35×50	0.15	2.31	HIJ122M35050□VA	
1500	35×60	0.15	2.51	HIJ152M35060□VA	
315 (365)	150	22×35	0.18	0.82	HI151M22035□VA
	150	25×30	0.18	0.82	HI151M25030□VA
	150	30×25	0.18	0.84	HI151M30025□VA
	180	22×40	0.18	0.90	HI181M22040□VA
	180	25×35	0.18	0.92	HI181M25035□VA
	180	30×25	0.18	0.88	HI181M30025□VA
	220	22×45	0.18	1.04	HI221M22045□VA
	220	25×40	0.18	1.06	HI221M25040□VA
	220	30×30	0.18	1.04	HI221M30030□VA
	270	25×45	0.18	1.12	HI271M25045□VA
	270	30×35	0.18	1.10	HI271M30035□VA
	270	35×30	0.18	1.14	HI271M35030□VA
	330	25×50	0.18	1.40	HI331M25050□VA
	330	30×40	0.18	1.40	HI331M30040□VA
	330	35×30	0.18	1.40	HI331M35030□VA
	390	30×45	0.18	1.62	HI391M30045□VA
	390	35×35	0.18	1.60	HI391M35035□VA
	470	30×50	0.18	1.82	HI471M30050□VA
	470	35×40	0.18	1.80	HI471M35040□VA
	560	35×45	0.18	1.90	HI561M35045□VA
680	35×50	0.18	2.22	HI681M35050□VA	
820	35×55	0.18	2.44	HI821M35055□VA	
1000	35×60	0.18	2.90	HI102M35060□VA	
1000	35×65	0.18	3.02	HI102M35065□VA	
1000	40×55	0.18	3.06	HI102M40055□VA	
1200	35×75	0.18	3.42	HI122M35075□VA	
1200	40×65	0.18	3.60	HI122M40065□VA	
1500	40×80	0.18	4.38	HI152M40080□VA	
1800	45×75	0.18	5.00	HI182M45075□VA	
2200	45×90	0.18	6.00	HI222M45090□VA	
2200	50×75	0.18	5.90	HI222M50075□VA	
2700	45×100	0.18	7.00	HI272M45100□VA	
2700	50×90	0.18	7.20	HI272M50090□VA	
3300	50×105	0.18	8.20	HI332M50105□VA	
350V	100	22×30	0.18	0.69	HIH101M22030□VA

\*□Enter the appropriate terminal code

# HI SERIES

◆ Standard Ratings

WV <sub>DC</sub> (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20°C/120Hz	Ripple Current 105°C/120Hz (Arms)	Catalog Part Number
350 (400)	100	25×25	0.18	0.69	HIH101M25025□VA
	120	22×35	0.18	0.75	HIH121M22035□VA
	120	25×25	0.18	0.75	HIH121M25025□VA
	150	22×40	0.18	0.82	HIH151M22040□VA
	150	25×30	0.18	0.80	HIH151M25030□VA
	150	30×25	0.18	0.81	HIH151M30025□VA
	180	22×45	0.18	0.94	HIH181M22045□VA
	180	25×35	0.18	0.92	HIH181M25035□VA
	180	30×30	0.18	0.92	HIH181M30030□VA
	220	22×50	0.18	1.06	HIH221M22050□VA
	220	25×40	0.18	1.04	HIH221M25040□VA
	220	35×25	0.18	1.04	HIH221M35025□VA
	270	25×50	0.18	1.22	HIH271M25050□VA
	270	30×35	0.18	1.20	HIH271M30035□VA
	270	35×30	0.18	1.22	HIH271M35030□VA
	330	30×45	0.18	1.34	HIH331M30045□VA
	330	35×35	0.18	1.38	HIH331M35035□VA
	390	30×50	0.18	1.62	HIH391M30050□VA
	390	35×40	0.18	1.60	HIH391M35040□VA
	470	30×50	0.18	1.80	HIH471M30050□VA
	470	35×45	0.18	1.80	HIH471M35045□VA
	560	30×60	0.18	2.14	HIH561M30060□VA
	560	35×50	0.18	2.16	HIH561M35050□VA
	680	35×55	0.18	2.32	HIH681M35055□VA
	820	35×60	0.18	2.70	HIH821M35060□VA
	1000	35×70	0.18	3.24	HIH102M35070□VA
	1200	35×90	0.18	3.90	HIH122M35090□VA
	1200	40×80	0.18	4.00	HIH122M40080□VA
	1200	45×60	0.18	4.10	HIH122M45060□VA
	1500	40×90	0.18	4.40	HIH152M40090□VA
1500	45×75	0.18	4.60	HIH152M45075□VA	
1500	50×70	0.18	4.90	HIH152M50070□VA	
1800	45×90	0.18	5.60	HIH182M45090□VA	
1800	50×80	0.18	5.60	HIH182M50080□VA	
2200	50×90	0.18	6.20	HIH222M50090□VA	
2700	50×105	0.18	6.70	HIH272M50105□VA	
400 (450)	47	22×25	0.18	0.39	HIG470M22025□VA
	56	22×25	0.18	0.48	HIG560M22025□VA
	68	22×30	0.18	0.55	HIG680M22030□VA
	82	22×35	0.18	0.64	HIG820M22035□VA
	82	25×25	0.18	0.64	HIG820M25025□VA
	100	22×35	0.18	0.69	HIG101M22035□VA
	100	25×30	0.18	0.69	HIG101M25030□VA
	120	22×40	0.18	0.75	HIG121M22040□VA
	120	25×35	0.18	0.76	HIG121M25035□VA
	120	30×25	0.18	0.75	HIG121M30025□VA
	150	22×50	0.18	0.82	HIG151M22050□VA
	150	25×40	0.18	0.83	HIG151M25040□VA
	150	30×30	0.18	0.82	HIG151M30030□VA
	180	25×45	0.18	1.02	HIG181M25045□VA
	180	30×35	0.18	1.02	HIG181M30035□VA
	180	35×25	0.18	1.02	HIG181M35025□VA
	220	25×50	0.18	1.10	HIG221M25050□VA
	220	30×40	0.18	1.10	HIG221M30040□VA
	220	35×30	0.18	1.08	HIG221M35030□VA
	270	30×45	0.18	1.24	HIG271M30045□VA
	270	35×35	0.18	1.24	HIG271M35035□VA
	330	30×50	0.18	1.36	HIG331M30050□VA
	330	35×40	0.18	1.34	HIG331M35040□VA

WV <sub>DC</sub> (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20°C/120Hz	Ripple Current 105°C/120Hz (Arms)	Catalog Part Number	
400 (450)	390	35×45	0.18	1.76	HIG391M35045□VA	
	470	35×50	0.18	2.00	HIG471M35050□VA	
	560	35×60	0.18	2.36	HIG561M35060□VA	
	680	40×60	0.18	2.80	HIG681M40060□VA	
	820	40×65	0.18	3.16	HIG821M40065□VA	
	1000	35×90	0.18	3.70	HIG102M35090□VA	
	1000	40×80	0.18	3.80	HIG102M40080□VA	
	1200	40×95	0.18	4.50	HIG122M40095□VA	
	1200	50×65	0.18	4.34	HIG122M50065□VA	
	1500	40×100	0.18	4.90	HIG152M40100□VA	
	1500	50×80	0.18	5.00	HIG152M50080□VA	
	1800	50×95	0.18	5.70	HIG182M50095□VA	
	2200	50×110	0.18	6.70	HIG222M50110□VA	
	450 (500)	47	22×30	0.20	0.40	HIE470M22030□VA
		56	22×35	0.20	0.47	HIE560M22035□VA
56		25×25	0.20	0.45	HIE560M25025□VA	
68		22×40	0.20	0.53	HIE680M22040□VA	
68		25×30	0.20	0.52	HIE680M25030□VA	
82		22×45	0.20	0.60	HIE820M22045□VA	
82		25×35	0.20	0.60	HIE820M25035□VA	
82		30×25	0.20	0.60	HIE820M30025□VA	
100		22×50	0.20	0.68	HIE101M22050□VA	
100		25×40	0.20	0.68	HIE101M25040□VA	
100		30×30	0.20	0.68	HIE101M30030□VA	
120		25×45	0.20	0.76	HIE121M25045□VA	
120		30×30	0.20	0.76	HIE121M30030□VA	
150		25×50	0.20	0.88	HIE151M25050□VA	
150		30×40	0.20	0.90	HIE151M30040□VA	
150		35×30	0.20	0.88	HIE151M35030□VA	
180		30×45	0.20	0.92	HIE181M30045□VA	
180		35×35	0.20	1.02	HIE181M35035□VA	
220		30×50	0.20	1.20	HIE221M30050□VA	
220		35×40	0.20	1.20	HIE221M35040□VA	
270		35×45	0.20	1.40	HIE271M35045□VA	
330		35×50	0.20	1.62	HIE331M35050□VA	
390		35×50	0.20	1.76	HIE391M35050□VA	
470		35×60	0.20	2.00	HIE471M35060□VA	
560	35×70	0.20	2.44	HIE561M35070□VA		
560	40×55	0.20	2.40	HIE561M40055□VA		
680	35×75	0.20	2.80	HIE681M35075□VA		
680	40×70	0.20	2.90	HIE681M40070□VA		
820	40×75	0.20	3.30	HIE821M40075□VA		
820	45×60	0.20	3.20	HIE821M45060□VA		
1000	40×90	0.20	3.90	HIE102M40090□VA		
1000	45×75	0.20	3.80	HIE102M45075□VA		
1200	40×100	0.20	4.40	HIE122M40100□VA		
1200	45×85	0.20	4.30	HIE122M45085□VA		
1200	50×80	0.20	4.50	HIE122M50080□VA		
1500	45×100	0.20	5.00	HIE152M45100□VA		
1500	50×90	0.20	5.10	HIE152M50090□VA		
1800	50×105	0.20	5.90	HIE182M50105□VA		
500 (550)	47	22×30	0.20	0.41	HIC470M22030□VA	
	56	22×30	0.20	0.47	HIC560M22030□VA	
	68	22×35	0.20	0.54	HIC680M22035□VA	
	68	25×30	0.20	0.54	HIC680M25030□VA	
	82	22×40	0.20	0.62	HIC820M22040□VA	
	82	25×35	0.20	0.63	HIC820M25035□VA	
	100	22×45	0.20	0.67	HIC101M22045□VA	
	100	25×40	0.20	0.68	HIC101M25040□VA	

\*□Enter the appropriate terminal code

# HI SERIES

◆ Standard Ratings

WV <sub>DC</sub> (Surge Voltage) (V)	Cap (μF)	Size D×L (mm)	tanδ 20℃/120Hz	Ripple Current 105℃/120Hz (Arms)	Catalog Part Number
500 (550)	100	30×30	0.20	0.70	HIC101M30030□VA
	120	22×50	0.20	0.80	HIC121M22050□VA
	120	25×40	0.20	0.78	HIC121M25040□VA
	120	30×35	0.20	0.82	HIC121M30035□VA
	120	35×30	0.20	0.84	HIC121M35030□VA
	150	25×45	0.20	0.92	HIC151M25045□VA
	150	30×40	0.20	0.96	HIC151M30040□VA
	150	35×35	0.20	1.00	HIC151M35035□VA
	180	25×50	0.20	1.04	HIC181M25050□VA
	180	30×45	0.20	1.10	HIC181M30045□VA
	220	30×50	0.20	1.28	HIC221M30050□VA
	220	35×40	0.20	1.28	HIC221M35040□VA
	270	30×50	0.20	1.42	HIC271M30050□VA
	270	35×40	0.20	1.42	HIC271M35040□VA
	330	35×45	0.20	1.64	HIC331M35045□VA
	390	35×50	0.20	1.86	HIC391M35050□VA
	470	35×60	0.20	2.20	HIC471M35060□VA
	560	35×70	0.20	2.50	HIC561M35070□VA
	680	35×80	0.20	3.00	HIC681M35080□VA
	550	680	40×70	0.20	3.10
820		40×80	0.20	3.50	HIC821M40080□VA
820		45×75	0.20	3.70	HIC821M45075□VA
1000		45×80	0.20	4.20	HIC102M45080□VA
1000		50×70	0.20	4.20	HIC102M50070□VA
1200		45×100	0.20	5.10	HIC122M45100□VA
1200		50×80	0.20	4.90	HIC122M50080□VA
1500		50×100	0.20	5.80	HIC152M50100□VA
100		25×40	0.20	0.70	HIZ101M25040□VA
100		25×50	0.20	0.78	HIZ101M25050□VA
150		30×45	0.20	1.00	HIZ151M30045□VA
180		30×50	0.20	1.20	HIZ181M30050□VA
220		30×60	0.20	1.40	HIZ221M30060□VA
270		35×50	0.20	1.60	HIZ271M35050□VA
330		35×60	0.20	1.90	HIZ331M35060□VA
390		35×70	0.20	2.20	HIZ391M35070□VA
390		40×60	0.20	2.20	HIZ391M40060□VA
470		35×80	0.20	2.54	HIZ471M35080□VA
470		40×70	0.20	2.58	HIZ471M40070□VA
560		35×90	0.20	2.90	HIZ561M35090□VA
560	40×80	0.20	2.90	HIZ561M40080□VA	
680	40×90	0.20	3.46	HIZ681M40090□VA	
680	45×70	0.20	3.32	HIZ681M45070□VA	
820	45×85	0.20	3.80	HIZ821M45085□VA	
820	50×70	0.20	3.70	HIZ821M50070□VA	
1000	45×100	0.20	4.50	HIZ102M45100□VA	
1000	50×85	0.20	4.40	HIZ102M50085□VA	
1200	50×100	0.20	5.00	HIZ122M50100□VA	

\*□ Enter the appropriate terminal code

\*Please ask for advice for other sizes.

\*Aluminum electrolytic capacitor will emit heat when ripple current is applied, the performance will deteriorate when temp. rises. the useful life will be half of original life when temp rises every 5℃. Please reduce the ripple current when using capacitor.