



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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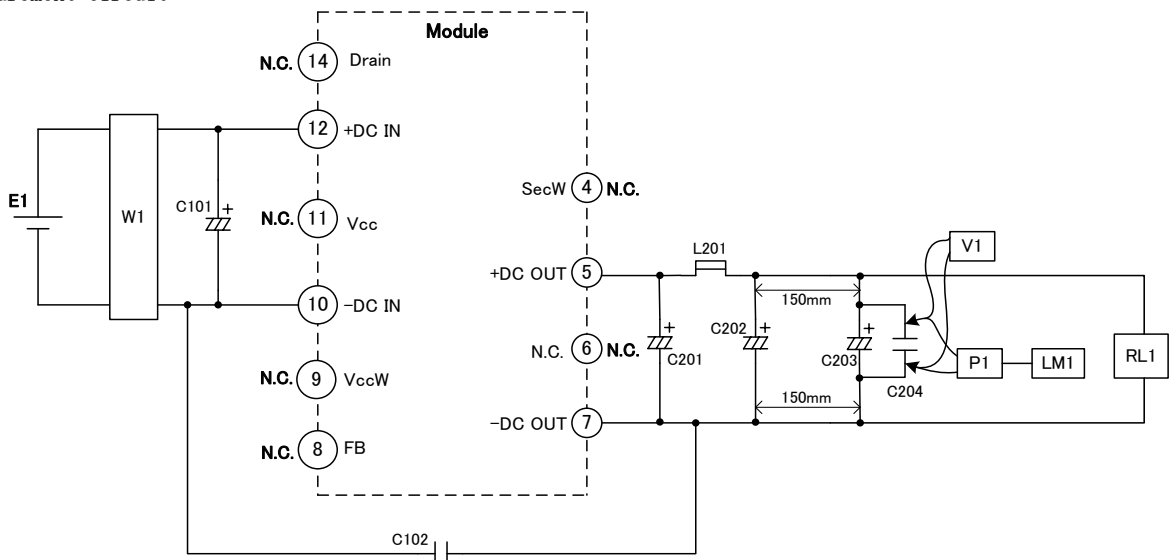
■ Input-output condition

| Item                 | Specification  |
|----------------------|----------------|
| Input voltage range  | DC110~450V     |
| Rated input voltage  | DC140V, DC340V |
| Rated output voltage | 12V            |
| Rated load current   | 1A             |

■ Electrical specification Ta=25°C

| Item                     | Specification      | Conditions · Note                           |
|--------------------------|--------------------|---|
| Efficiency               | More than 80%      | Rated input voltage<br>Rated output current |
| Output voltage tolerance | ±5%                |   |
| Line regulation          | Less than 100mV    | Input voltage DC110V~450V                   |
| Load regulation          | Less than 250mV    | Output current 0~1A                         |
| No-load power            | Less than 70mW     | Rated input voltage                         |
| Ripple                   | Less than 120mVp-p | Rated input voltage<br>Rated output current |
| Ripple noise             | Less than 150mVp-p |   |

Measurement circuit



- E1 : DC power supply
- W1 : Wattmeter WT210 (YOKOGAWA)
- RL1 : Electronic load
- V1 : Voltmeter Class 0.5
- P1 : Differential probe DP-100 (KG)
- LM1 : Ripple noise meter RM-103 (KG)

- C101 : 450BXC33M (RUBYCON)
- C102 : CD85-E2GA102M (TDK)
- C201 : 25ZLG330M (RUBYCON)
- C202 : 25ZLG330M (RUBYCON)
- C203 : 25ZLG47M (RUBYCON)
- C204 : 50F2D104K (RUBYCON)
- L201 : PJ5H-2R2M (KORIN)

■Protection

| Item                   | Specification   | Conditions · Note |
|------------------------|-----------------|-------------------|
| Overcurrent protection | More than 1.05A | Auto recovery     |
| Overvoltage protection | 13.5~18V        | Latch off         |
| Overheat protection    |                 | Latch off         |

■Insulation

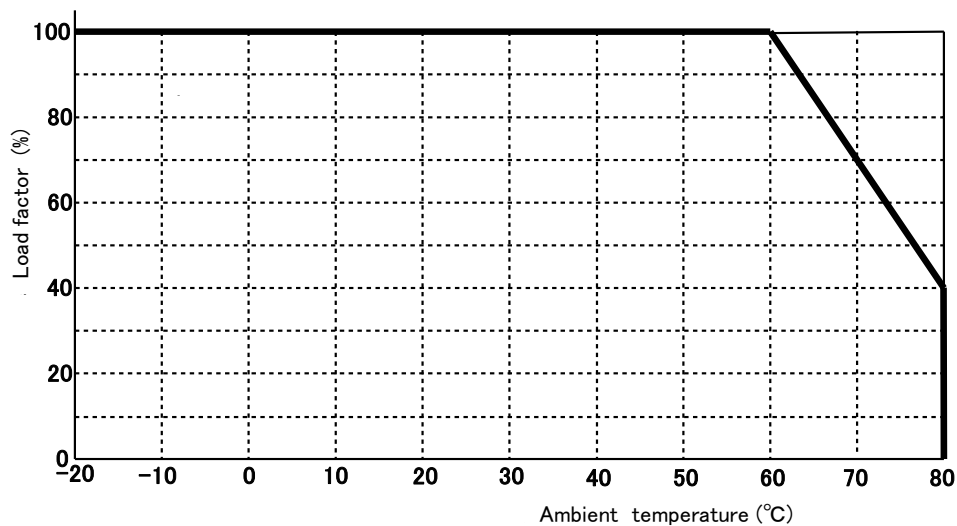
| Item                                       | Specification    | Conditions · Note                  |
|--|------------------|------------------------------------|
| Insulation voltage<br>(Between Pri-Sec)    | 3.0kV (or 3.6kV) | AC 1min (or AC 2sec)<br>Cutoff 2mA |
| Insulation resistance<br>(Between Pri-Sec) | More than 100MΩ  | DC500V                             |

■Environmental conditions

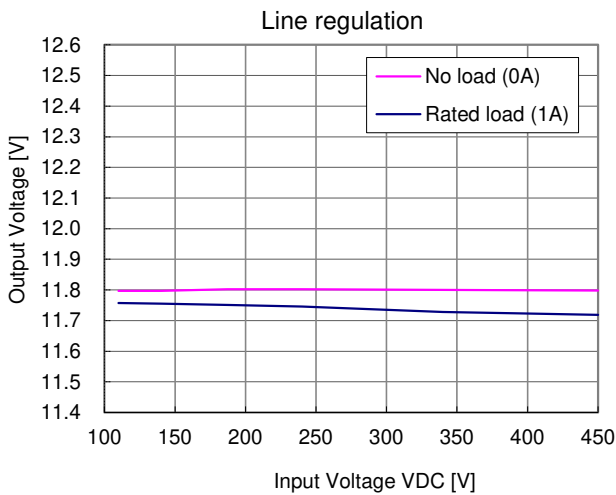
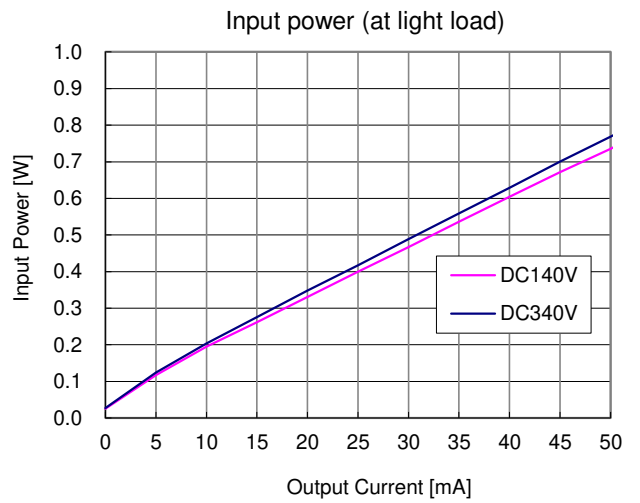
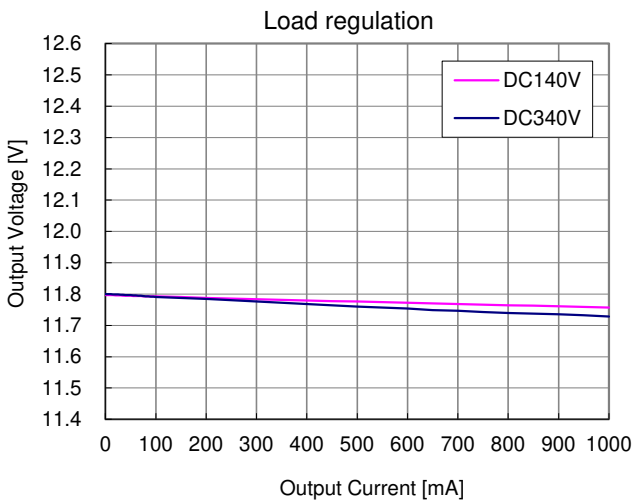
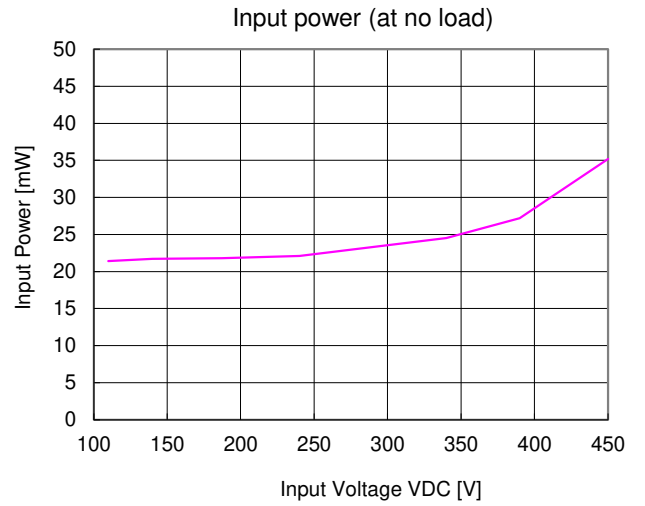
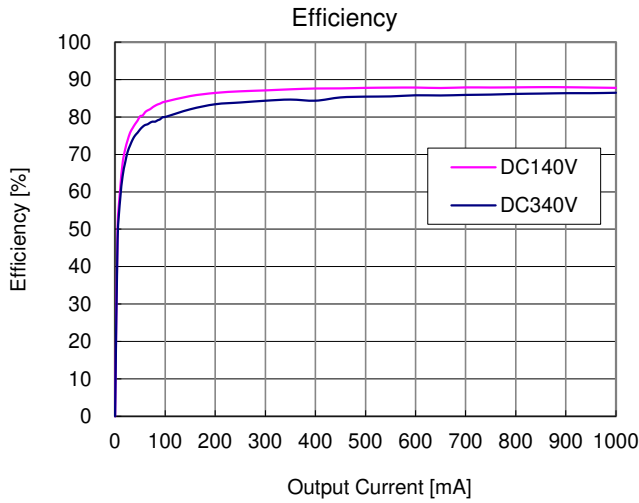
| Item                  | Specification                 | Conditions · Note                      |
|-----------------------|-------------------------------|--|
| Operation temperature | -20°C~80°C                    | Stand for ambient temperature derating |
| Operating humidity    | 20~95%RH<br>(No condensation) |  |
| Storage temperature   | -25°C~85°C                    |  |
| Storage humidit       | 5~95%RH<br>(No condensation)  |  |

■Ambient temperature derating curve

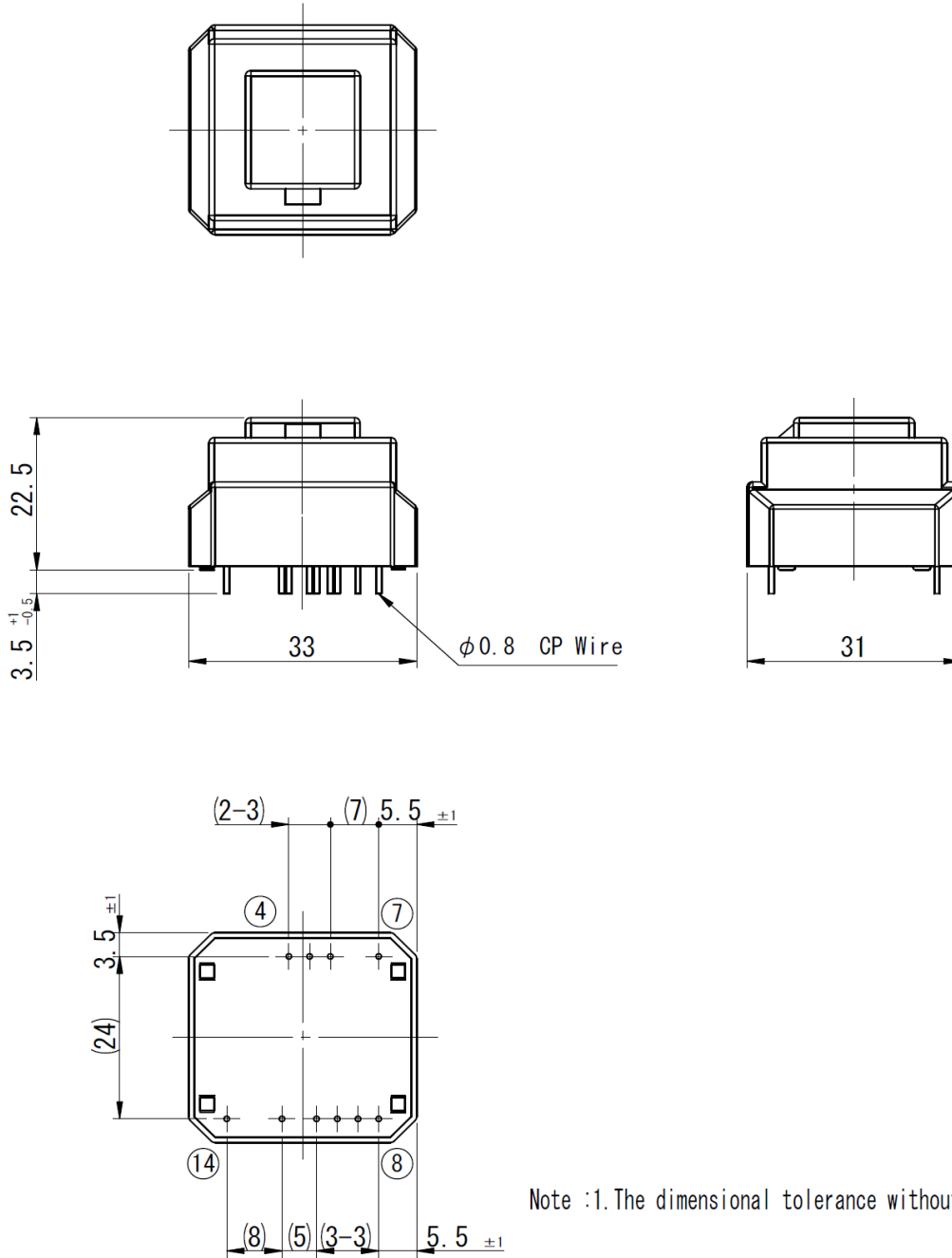
Reduce the load current according to the following temperature derating table.



■ Typical characteristics Ta=25°C

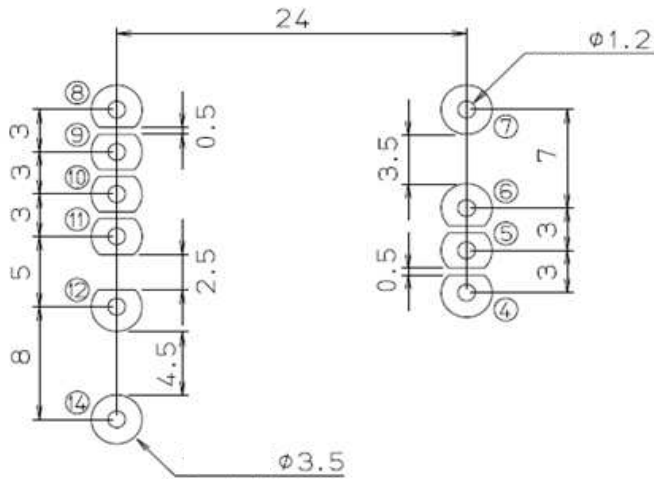


■Outline dimensional drawing



Unit : mm

■Recommended hole diameter and land size



※ The round pulling out figure is a pin numbering.

Unit : mm

Component side

■Terminal function and connection

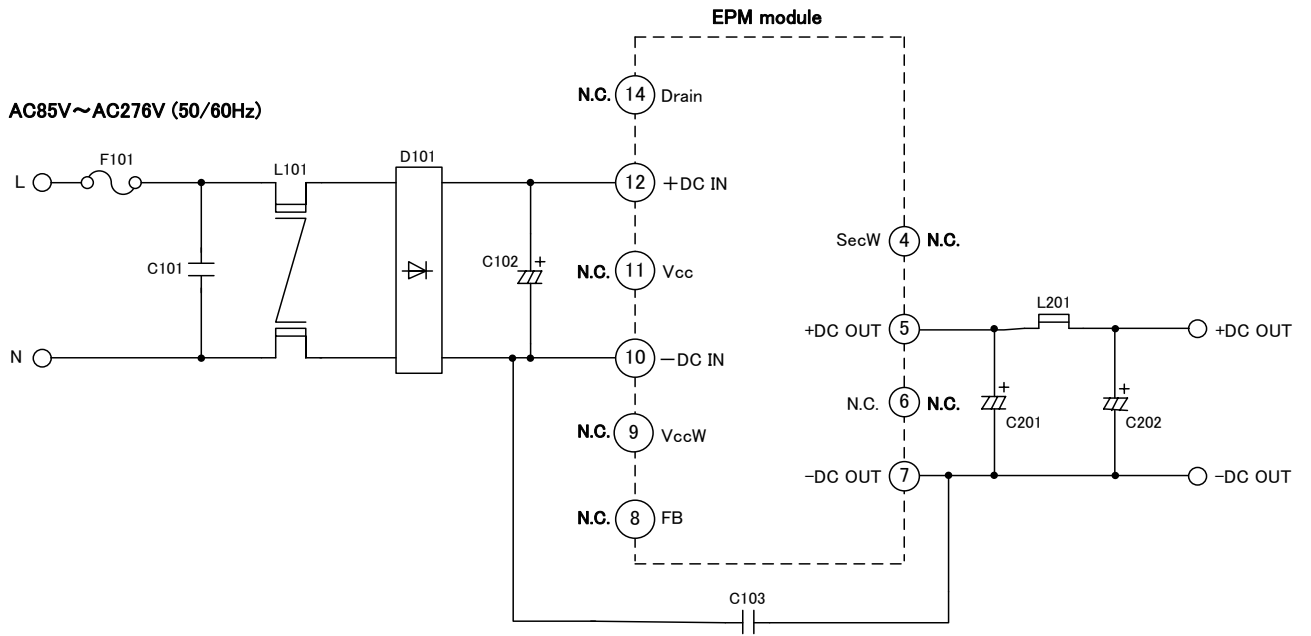
Secondaries

| Pin No. | Name    | Explanation of terminals                                 |
|---------|---------|--|
| 1       |         | No terminal  |
| 2       |         | No terminal  |
| 3       |         | No terminal  |
| 4       | SecW    | Non-contact terminal ※Don't connect with other circuits. |
| 5       | +DC OUT | Output terminal (+)                                      |
| 6       | N. C.   | Non-contact terminal ※Don't connect with other circuits. |
| 7       | -DC OUT | Output terminal (-)                                      |

Primaries

| Pin No. | Name   | Explanation of terminals                                 |
|---------|--------|--|
| 8       | FB     | Non-contact terminal ※Don't connect with other circuits. |
| 9       | VccW   | Non-contact terminal ※Don't connect with other circuits. |
| 10      | -DC IN | DC voltage input terminal (-)                            |
| 11      | Vcc    | Terminal for start-up time adjustment                    |
| 12      | +DC IN | DC voltage input terminal (+)                            |
| 13      |        | No terminal  |
| 14      | Drain  | Terminal for noise adjustment                            |

■Application circuit example



| Symbol | Description | Part No.      | Manufacturer  |
|--------|-------------|---------------|---------------|
| D101   | Diode       | D2SB60        | SHINDENGEN    |
| L101   | Inductor    | LF-4Z-E393    | KORIN         |
| L201   | Inductor    | PJ5H-2R2M     | KORIN         |
| C101   | Capacitor   | LE104-MX      | OKAYA         |
| C102   | Capacitor   | 450BXC33M     | RUBYCON       |
| C103   | Capacitor   | CD85-E2GA102M | TDK           |
| C201   | Capacitor   | 25ZLG330M     | RUBYCON       |
| C202   | Capacitor   | 25ZLG330M     | RUBYCON       |
| F101   | Fuse        | FCT 250V 1.6A | NIPPON-SEISEN |