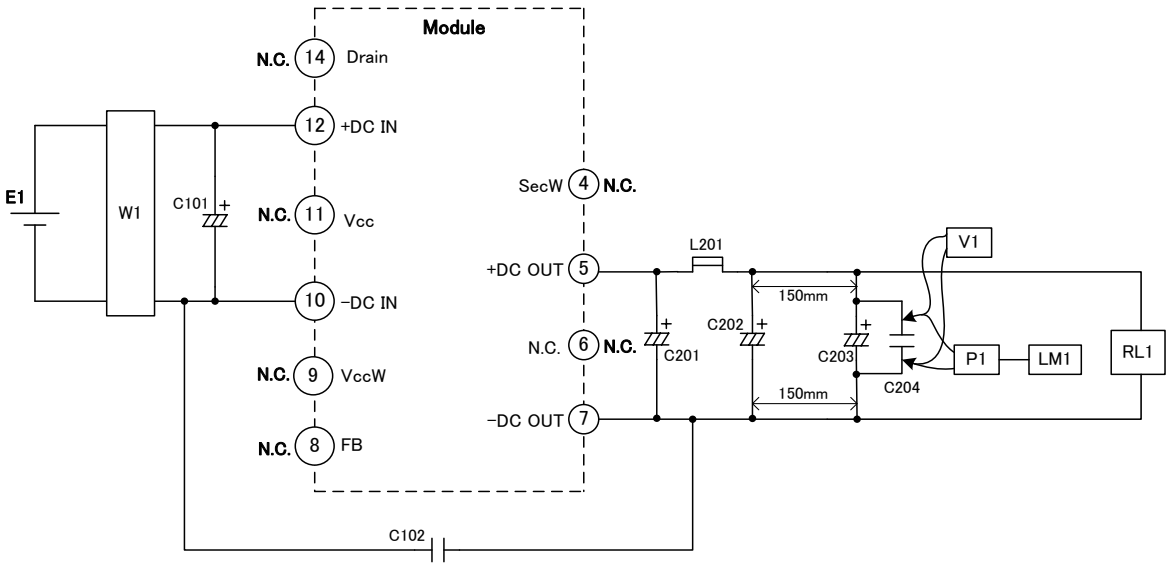
■Input-output condition

Item	Specification
Input voltage range	DC110～450V
Rated input voltage	DC140V, DC340V
Rated output voltage	12V
Rated load current	0.5A

■Electrical specification Ta=25℃

Item	Specification	Conditions・Note
Efficiency	More than 75%	Rated input voltage Rated output current
Output voltage tolerance	±10%	
Line regulation	Less than 50mV	Input voltage DC110V～450V
Load regulation	Less than 200mV	Output current 0～500mA
No-load power	Less than 70mW	Rated input voltage
Ripple	Less than 120mVp-p	Rated input voltage 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 noize meter RM-103(KG)

C101 : 450BXC22M (RUBYCON)
C102 : CD75-E2GA681M (TDK)
C201 : 25ZLG220M (RUBYCON)
C202 : 25ZLG220M (RUBYCON)
C203 : 25ZLG47M (RUBYCON)
C204 : 50F2D104K (RUBYCON)
L201 : PJ5H-2R2M (KORIN)

■Protection

Item	Specification	Conditions・Note
Overcurrent protection	More than 0.53A	Auto recovery
Overvoltage protection	13.5～18V	Latch off
Overheat protection		Latch off

■Insulation

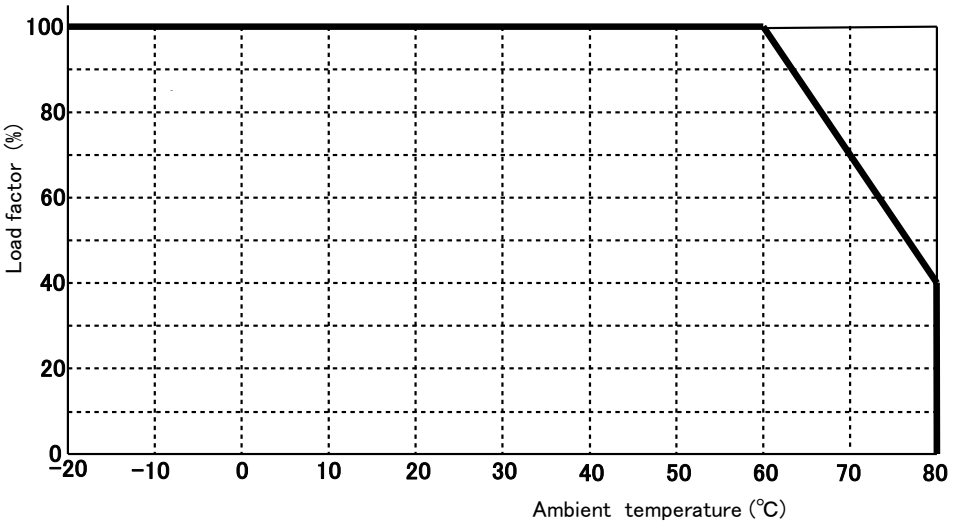
Item	Specification	Conditions・Note
Insulation voltage (Between Pri－Sec)	3.0kV (or 3.6kV)	AC 1min (or AC 2sec) Cutoff 2mA
Insulation resistance (Between Pri－Sec)	More than 100MΩ	DC500V

■Environmental conditions

Item	Specification	Conditions・Note
Operation temperature	-20℃～80℃	Stand for ambient temperature derating
Operating humidity	20～95%RH (No condensation)	
Storage temperature	-25℃～85℃	
Storage humidit	5～95%RH (No condensation)	

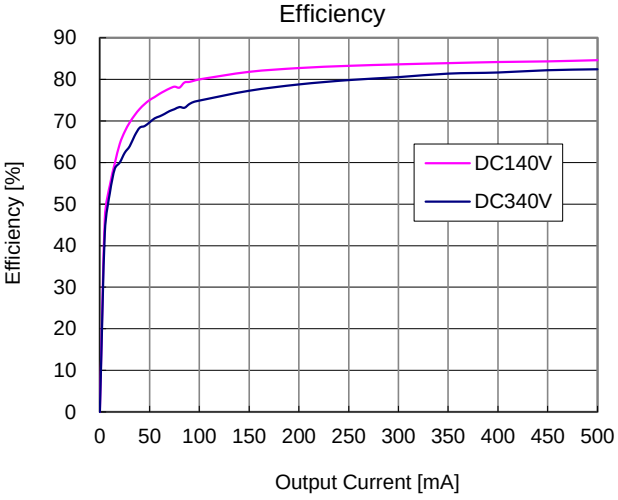
■Ambient temperature derating curve

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

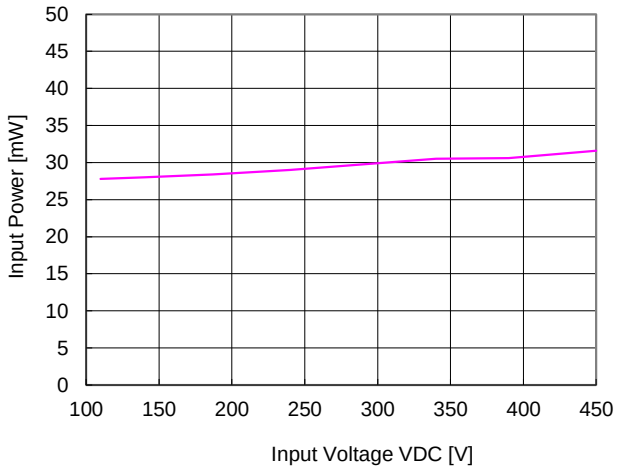


■Typical characteristics Ta=25℃

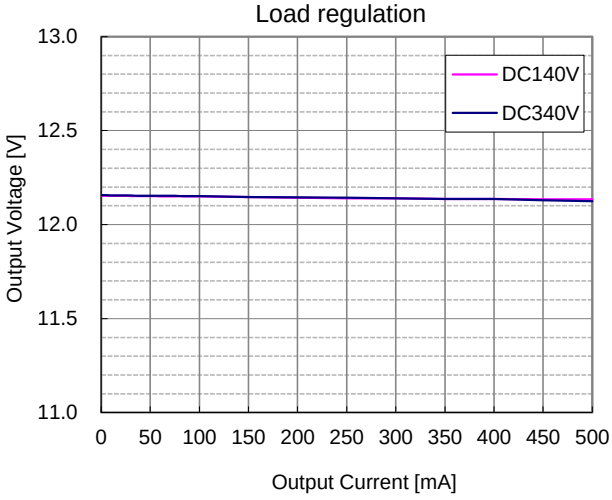
Efficiency



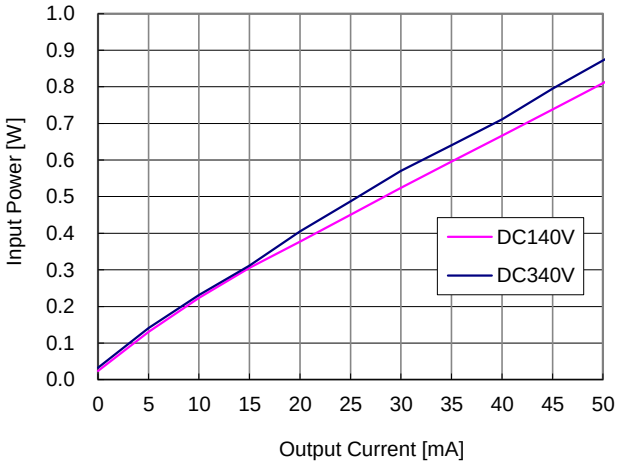
Input power (at no load)



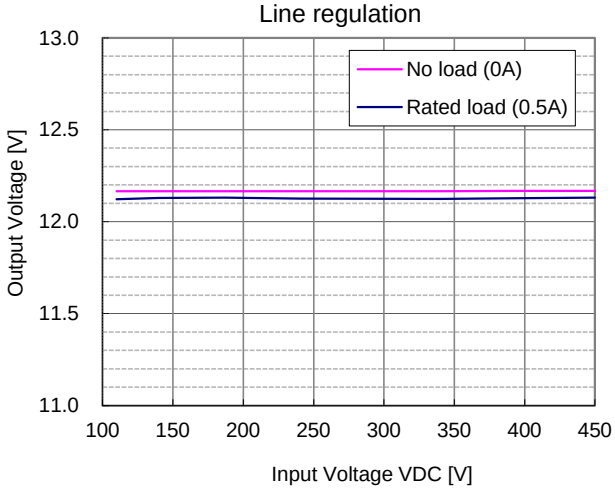
Load regulation



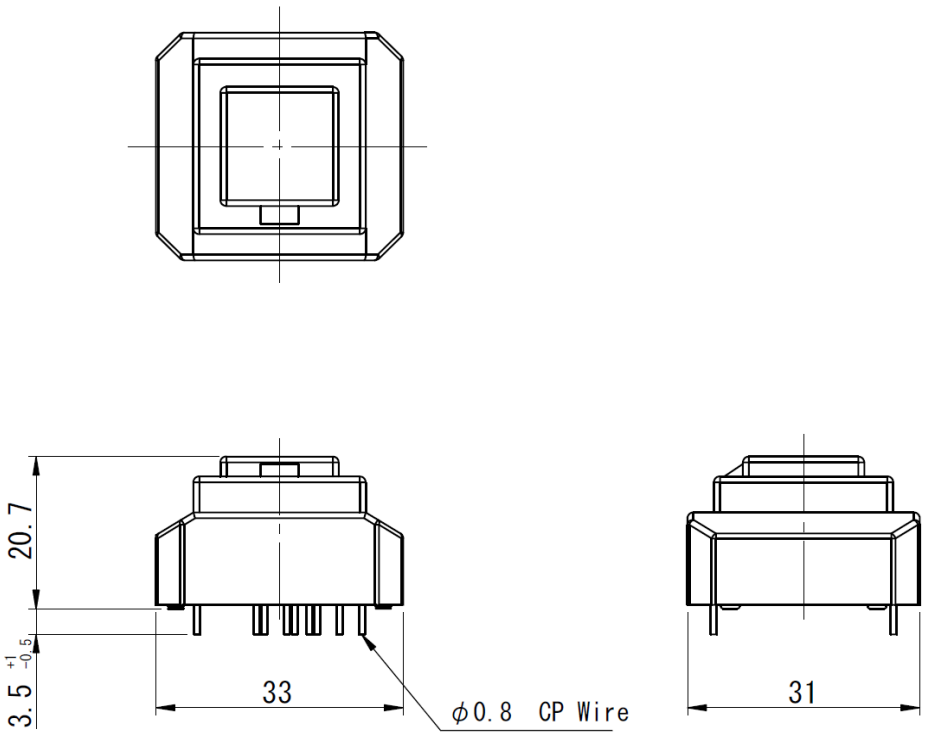
Input power (at light load)

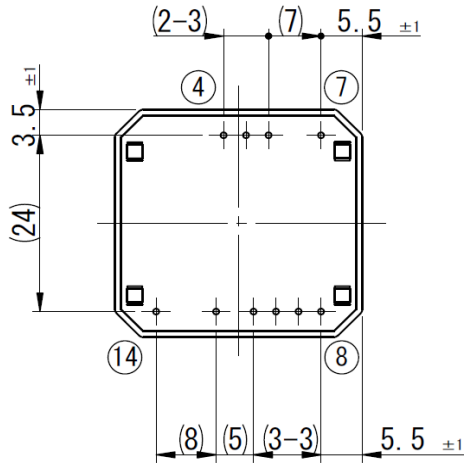


Line regulation



■Outline dimensional drawing

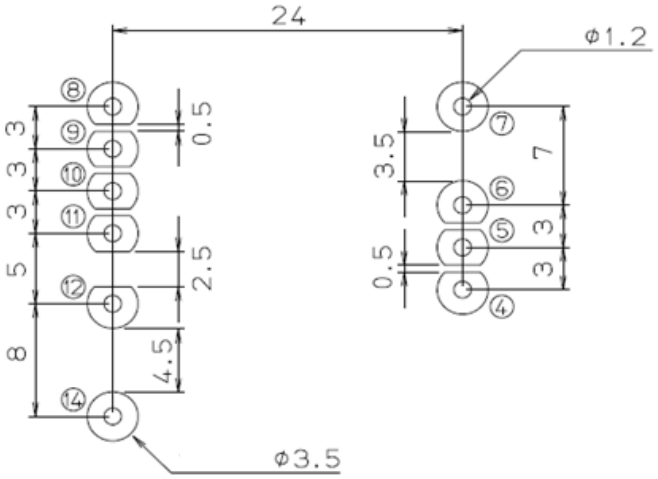




Note :1.The dimensional tolerance without directions is ± 0.5mm.

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

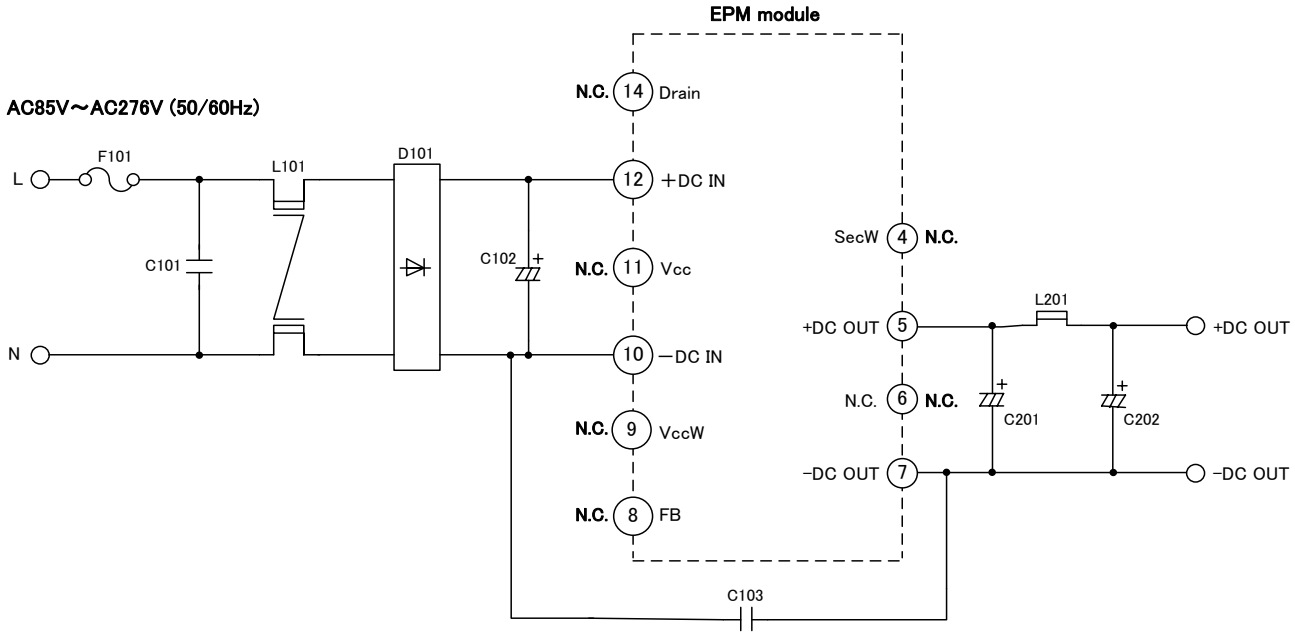
Secondaries

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-E333	KORIN
L201	Inductor	PJ5H-2R2M	KORIN
C101	Capacitor	LE104-MX	OKAYA
C102	Capacitor	450BXC22M	RUBYCON
C103	Capacitor	CD75-E2GA681M	TDK
C201	Capacitor	25ZLG220M	RUBYCON
C202	Capacitor	25ZLG220M	RUBYCON
F101	Fuse	FCT 250V 1.6A	NIPPON-SEISEN