

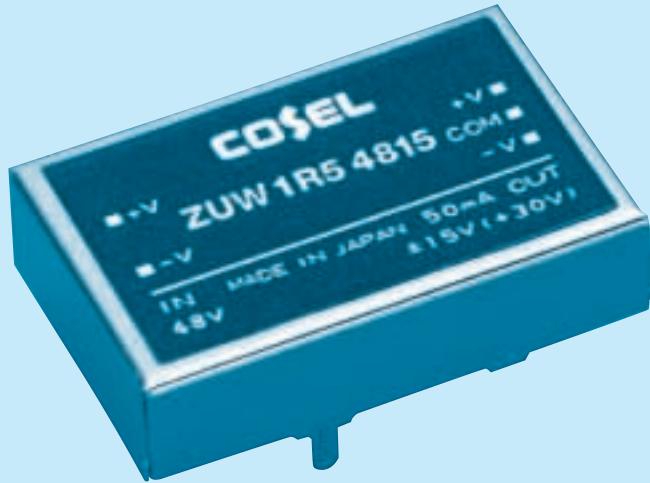
# ZUW1R5

ZU W 1R5 12 12

① ② ③ ④ ⑤



- ① Series name
- ② Dual output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage



MODEL	ZUW1R50512	ZUW1R50515	ZUW1R51212	ZUW1R51215	ZUW1R52412	ZUW1R52415	ZUW1R54812	ZUW1R54815
MAX OUTPUT WATTAGE[W]	1.56	1.50	1.56	1.50	1.56	1.50	1.56	1.50
DC OUTPUT	VOLTAGE[V]	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24
	CURRENT[A]	0.065	0.050	0.065	0.050	0.065	0.050	0.065

## SPECIFICATIONS

Output pins can be connected in series to make a 24V/30V output.

	MODEL	ZUW1R50512	ZUW1R50515	ZUW1R51212	ZUW1R51215	ZUW1R52412	ZUW1R52415	ZUW1R54812	ZUW1R54815	
INPUT	VOLTAGE[V]	DC4.5 - 9		DC9 - 18		DC18 - 36		DC36 - 72		
	CURRENT[A]	*1 0.466typ	0.448typ	0.183typ	0.176typ	0.092typ	0.088typ	0.046typ	0.044typ	
	EFFICIENCY[%]	*1 67typ	67typ	71typ	71typ	71typ	71typ	71typ	71typ	
OUTPUT	VOLTAGE[V]	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	
	CURRENT[A]	0.065	0.050	0.065	0.050	0.065	0.050	0.065	0.050	
	LINE REGULATION[mV]	60max	75max	60max	75max	60max	75max	60max	75max	
	LOAD REGULATION[mV]	600max	750max	600max	750max	600max	750max	600max	750max	
	RIPPLE[mVp-p]	*2 120max	120max	120max	120max	120max	120max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 150max	150max	150max	150max	150max	150max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	150max	180max	150max	180max	150max	180max	150max	
	DRIFT[mV]	*3 50max	60max	50max	60max	50max	60max	50max	60max	
	START-UP TIME[ms]	20max (Minimum input, I <sub>o</sub> =100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed								
OUTPUT VOLTAGE SETTING[V]	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75		
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically								
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max								
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max								
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis								
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis								
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1								
OTHERS	CASE SIZE/WEIGHT	27.5 × 7 × 18mm (W × H × D) / 10g max								
	COOLING METHOD	Convection								

\*1 Rated input 5V, 12V, 24V or 48V DC, I<sub>o</sub>=100%.

\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

\* The output specification is at ±12V and ±15V.

\* Series/Parallel operation with other model is not possible.



# ZUW3

**ZU W 3 12 12**

① ② ③ ④ ⑤



- ① Series name
- ② Dual output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage

MODEL	ZUW30512	ZUW30515	ZUW31212	ZUW31215	ZUW32412	ZUW32415	ZUW34812	ZUW34815	
MAX OUTPUT WATTAGE[W]	3.12	3.00	3.12	3.00	3.12	3.00	3.12	3.00	
DC OUTPUT	VOLTAGE[V]	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30
	CURRENT[A]	0.13	0.10	0.13	0.10	0.13	0.10	0.13	0.10

## SPECIFICATIONS

Output pins can be connected in series to make a 24V/30V output.

	MODEL	ZUW30512	ZUW30515	ZUW31212	ZUW31215	ZUW32412	ZUW32415	ZUW34812	ZUW34815	
INPUT	VOLTAGE[V]	DC4.5 - 9		DC9 - 18		DC18 - 36		DC36 - 72		
	CURRENT[A]	*1 0.891typ	0.857typ	0.351typ	0.338typ	0.176typ	0.169typ	0.087typ	0.083typ	
	EFFICIENCY[%]	*1 70typ	70typ	74typ	74typ	74typ	74typ	75typ	75typ	
OUTPUT	VOLTAGE[V]	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	
	CURRENT[A]	0.13	0.10	0.13	0.10	0.13	0.10	0.13	0.10	
	LINE REGULATION[mV]	60max	75max	60max	75max	60max	75max	60max	75max	
	LOAD REGULATION[mV]	600max	750max	600max	750max	600max	750max	600max	750max	
	RIPPLE[mVp-p]	*2 120max	120max	120max	120max	120max	120max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 150max	150max	150max	150max	150max	150max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	150max	180max	150max	180max	150max	180max	150max	180max
	DRIFT[mV]	*3 50max	60max	50max	60max	50max	60max	50max	60max	
	START-UP TIME[ms]	20max (Minimum input, I <sub>o</sub> =100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed								
OUTPUT VOLTAGE SETTING[V]	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75		
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically								
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max								
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max								
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis								
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis								
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1								
OTHERS	CASE SIZE/WEIGHT	35 × 7 × 23mm (W × H × D) / 16g max								
	COOLING METHOD	Convection								

\*1 Rated input 5V, 12V, 24V or 48V DC, I<sub>o</sub>=100%.

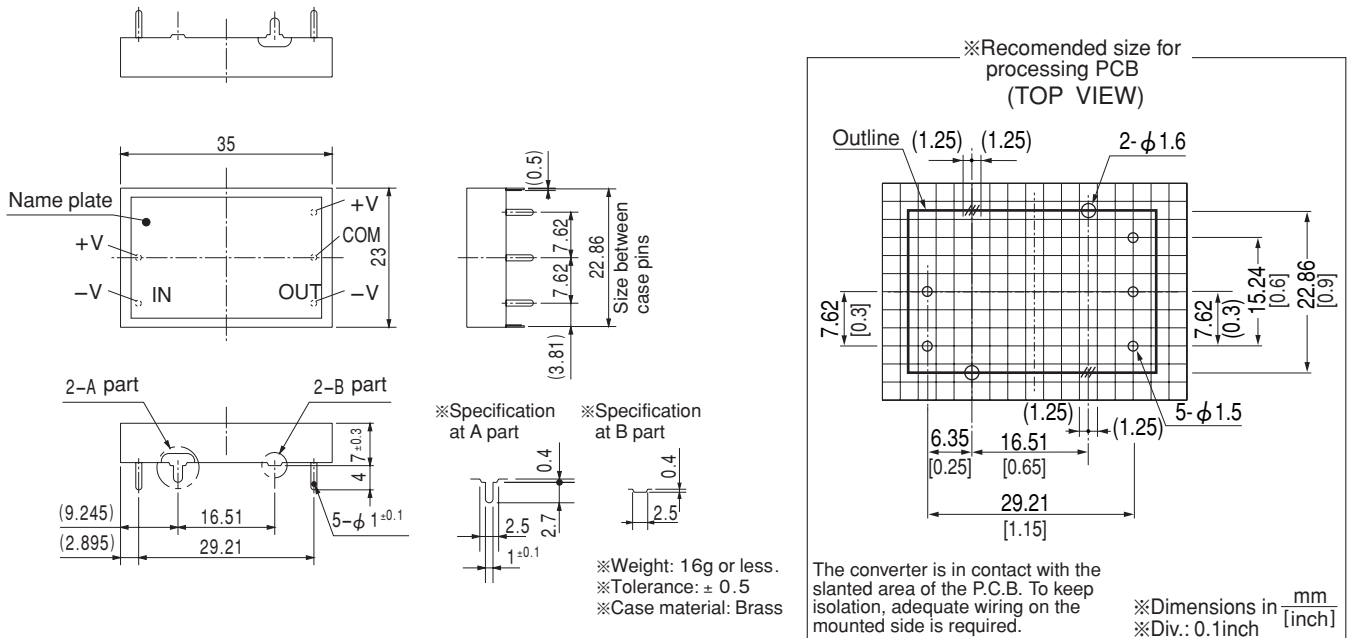
\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

\* The output specification is at ±12V and ±15V.

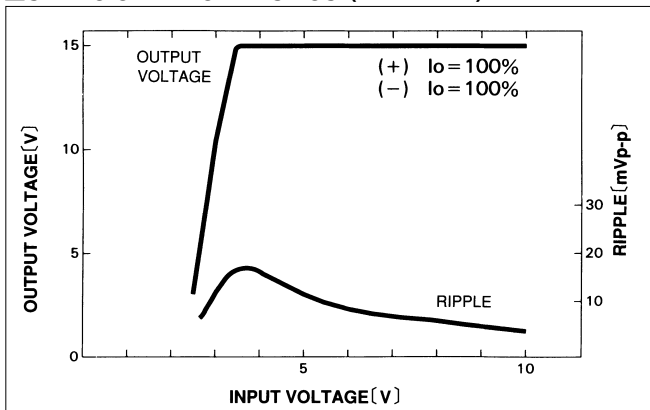
\* Series/Parallel operation with other model is not possible.

External view

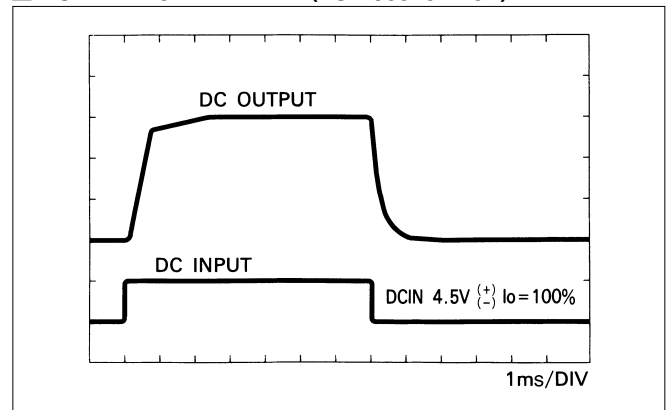


Performance data

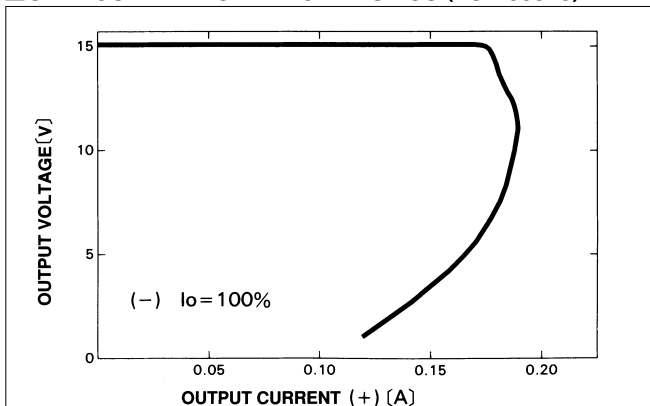
■ STATIC CHARACTERISTICS (ZUW30515)



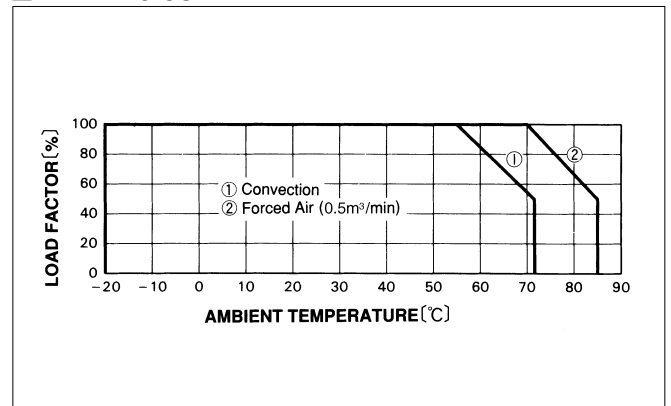
■ RISE TIME & FALL TIME (ZUW30515:+15V)



■ OVERCURRENT CHARACTERISTICS (ZUW30515)



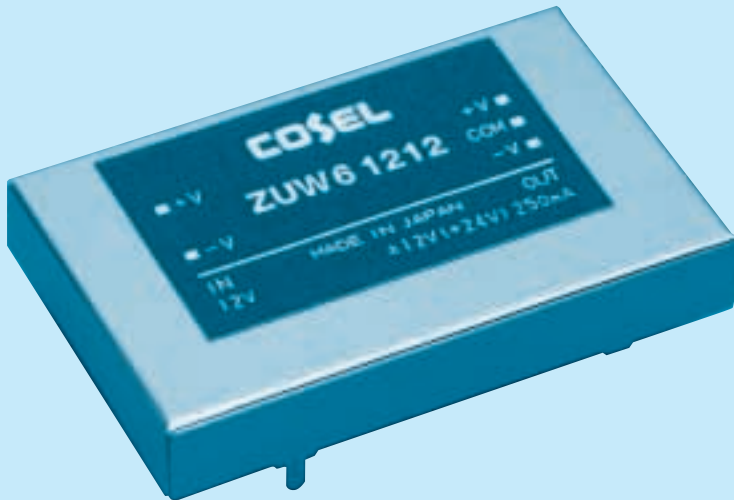
■ DERATING CURVE



# ZUW6

ZU W 6 12 12

① ② ③ ④ ⑤



- ① Series name
- ② Dual output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage

MODEL	ZUW60512	ZUW60515	ZUW61212	ZUW61215	ZUW62412	ZUW62415	ZUW64812	ZUW64815
MAX OUTPUT WATTAGE[W]	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
DC OUTPUT	VOLTAGE[V]	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24
	CURRENT[A]	0.25	0.20	0.25	0.20	0.25	0.20	0.25

## SPECIFICATIONS

Output pins can be connected in series to make a 24V/30V output.

	MODEL	ZUW60512	ZUW60515	ZUW61212	ZUW61215	ZUW62412	ZUW62415	ZUW64812	ZUW64815	
INPUT	VOLTAGE[V]	DC4.5 - 9		DC9 - 18		DC18 - 36		DC36 - 72		
	CURRENT[A]	*1 1.60typ	1.60typ	0.65typ	0.65typ	0.33typ	0.33typ	0.17typ	0.17typ	
	EFFICIENCY[%]	*1 75typ	75typ	77typ	77typ	77typ	77typ	77typ	77typ	
OUTPUT	VOLTAGE[V]	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	
	CURRENT[A]	0.25	0.20	0.25	0.20	0.25	0.20	0.25	0.20	
	LINE REGULATION[mV]	60max	75max	60max	75max	60max	75max	60max	75max	
	LOAD REGULATION[mV]	600max	750max	600max	750max	600max	750max	600max	750max	
	RIPPLE[mVp-p]	*2 120max	120max	120max	120max	120max	120max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 150max	150max	150max	150max	150max	150max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	150max	180max	150max	180max	150max	180max	150max	
	DRIFT[mV]	*3 50max	60max	50max	60max	50max	60max	50max	60max	
	START-UP TIME[ms]	20max (Minimum input, I <sub>o</sub> =100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed								
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically								
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max								
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max								
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis								
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis								
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1								
OTHERS	CASE SIZE/WEIGHT	44.5 × 7 × 28mm (W × H × D) / 25g max								
	COOLING METHOD	Convection								

\*1 Rated input 5V, 12V, 24V or 48V DC, I<sub>o</sub>=100%.

\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

\* The output specification is at ±12V and ±15V.

\* Series/Parallel operation with other model is not possible.



# ZUW10

**ZU W 10 12 12**

① ② ③ ④ ⑤



- ① Series name
- ② Dual output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage

MODEL	ZUW100512	ZUW100515	ZUW101212	ZUW101215	ZUW102412	ZUW102415	ZUW104812	ZUW104815	
MAX OUTPUT WATTAGE[W]	8.4	9.0	10.8	10.5	10.8	10.5	10.8	10.5	
DC OUTPUT	VOLTAGE[V]	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30
	CURRENT[A]	0.35	0.30	0.45	0.35	0.45	0.35	0.45	0.35

## SPECIFICATIONS

Output pins can be connected in series to make a 24V/30V output.

	MODEL	ZUW100512	ZUW100515	ZUW101212	ZUW101215	ZUW102412	ZUW102415	ZUW104812	ZUW104815	
INPUT	VOLTAGE[V]	DC4.5 - 9		DC9 - 18		DC18 - 36		DC36 - 72		
	CURRENT[A]	*1 2.24typ	2.40typ	1.12typ	1.09typ	0.56typ	0.55typ	0.28typ	0.28typ	
	EFFICIENCY[%]	*1 75typ	75typ	81typ	81typ	81typ	81typ	81typ	81typ	
OUTPUT	VOLTAGE[V]	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	
	CURRENT[A]	0.35	0.30	0.45	0.35	0.45	0.35	0.45	0.35	
	LINE REGULATION[mV]	60max	75max	60max	75max	60max	75max	60max	75max	
	LOAD REGULATION[mV]	600max	750max	600max	750max	600max	750max	600max	750max	
	RIPPLE[mVp-p]	*2 120max	120max	120max	120max	120max	120max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 150max	150max	150max	150max	150max	150max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	150max	180max	150max	180max	150max	180max	150max	180max
	DRIFT[mV]	*3 50max	60max	50max	60max	50max	60max	50max	60max	
	START-UP TIME[ms]	20max (Minimum input, I <sub>o</sub> =100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed								
OUTPUT VOLTAGE SETTING[V]	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75		
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically								
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max								
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max								
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis								
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis								
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1								
OTHERS	CASE SIZE/WEIGHT	45 × 7 × 35mm (W × H × D) / 40g max								
	COOLING METHOD	Convection								

\*1 Rated input 5V, 12V, 24V or 48V DC, I<sub>o</sub>=100%.

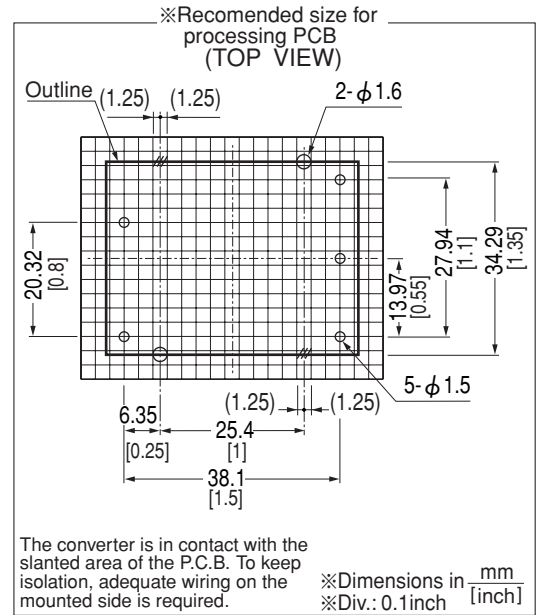
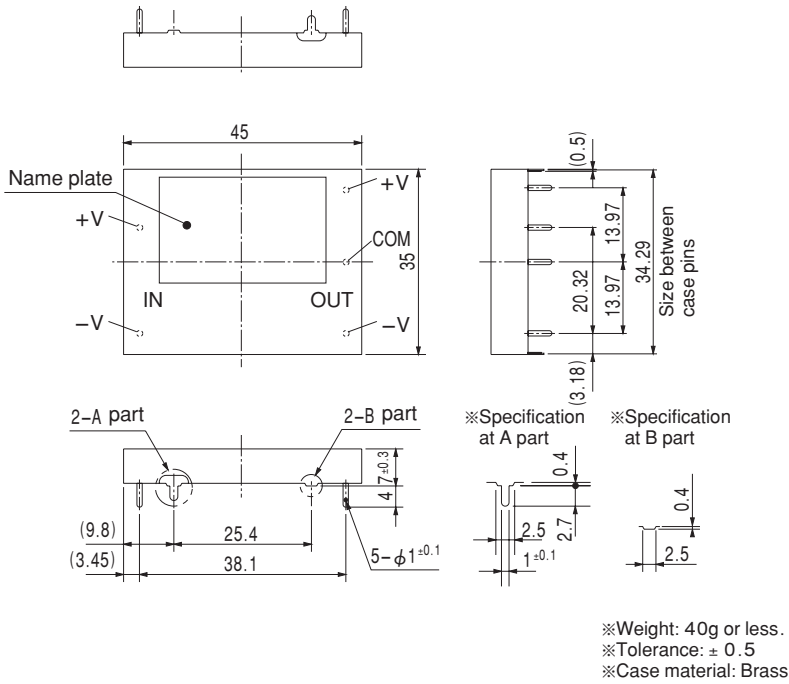
\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

\* The output specification is at ±12V and ±15V.

\* Series/Parallel operation with other model is not possible.

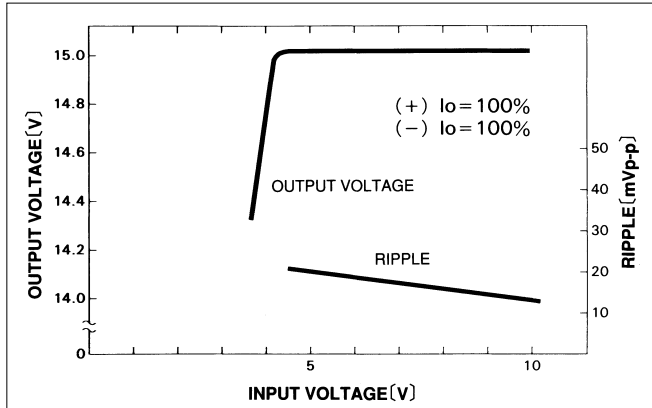
External view



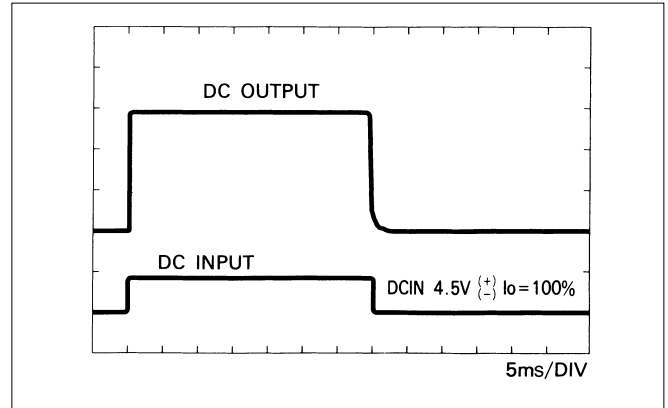
The converter is in contact with the slanted area of the P.C.B. To keep isolation, adequate wiring on the mounted side is required.

Performance data

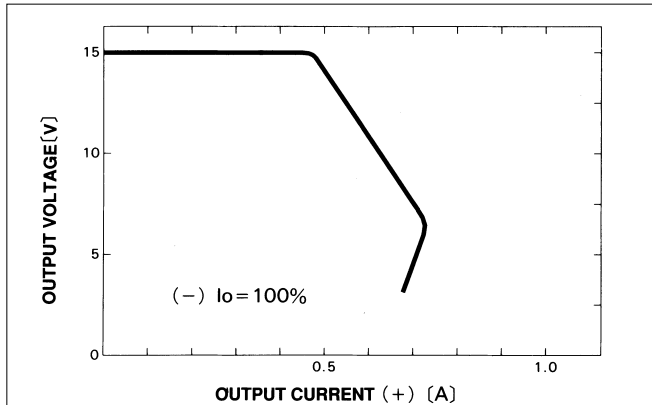
■ STATIC CHARACTERISTICS (ZUW100515)



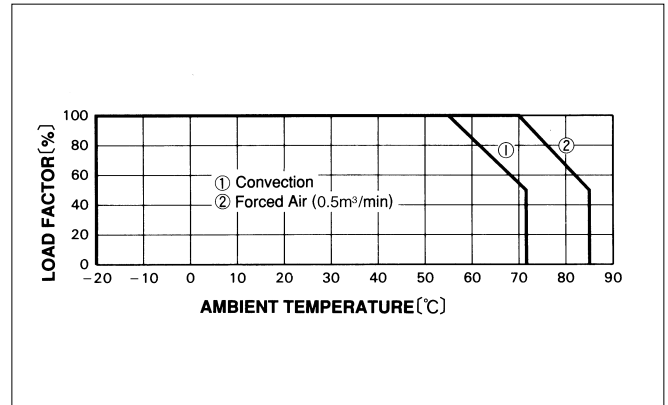
■ RISE TIME & FALL TIME (ZUW100515:+15V)



■ OVERCURRENT CHARACTERISTICS (ZUW100515)



■ DERATING CURVE



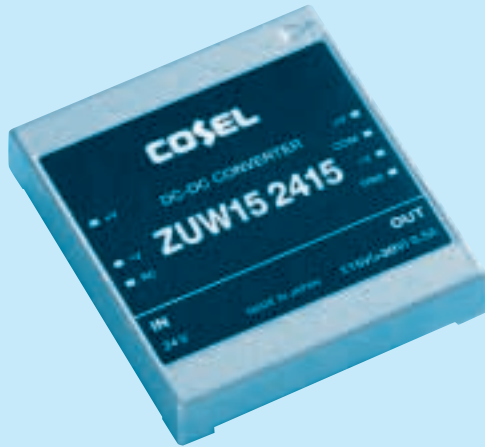
ZU/ZT



# ZUW15

**ZU W 15 12 12**

① ② ③ ④ ⑤



- ① Series name
- ② Dual output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage

MODEL	ZUW150512	ZUW150515	ZUW151212	ZUW151215	ZUW152412	ZUW152415	ZUW154812	ZUW154815	
MAX OUTPUT WATTAGE[W]	14.4	15.0	15.6	15.0	15.6	15.0	15.6	15.0	
DC OUTPUT	VOLTAGE[V]	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30
	CURRENT[A]	0.6	0.5	0.65	0.5	0.65	0.5	0.65	0.5

## SPECIFICATIONS

Output pins can be connected in series to make a 24V/30V output.

	MODEL	ZUW150512	ZUW150515	ZUW151212	ZUW151215	ZUW152412	ZUW152415	ZUW154812	ZUW154815	
INPUT	VOLTAGE[V]	DC4.5 - 9		DC9 - 18		DC18 - 36		DC36 - 75		
	CURRENT[A]	*1 3.56typ	3.70typ	1.57typ	1.51typ	0.78typ	0.75typ	0.39typ	0.38typ	
	EFFICIENCY[%]	*1 81typ	81typ	83typ	83typ	83typ	83typ	83typ	83typ	
OUTPUT	VOLTAGE[V]	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	
	CURRENT[A]	0.60	0.50	0.65	0.50	0.65	0.50	0.65	0.50	
	LINE REGULATION[mV]	60max	75max	60max	75max	60max	75max	60max	75max	
	LOAD REGULATION[mV]	600max	750max	600max	750max	600max	750max	600max	750max	
	RIPPLE[mVp-p]	*2 120max	120max	120max	120max	120max	120max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 150max	150max	150max	150max	150max	150max	150max	150max	
	TEMPERATURE REGULATION[mV]	0 to +55°C	150max	180max	150max	180max	150max	180max	150max	180max
	DRIFT[mV]	*3 50max	60max	50max	60max	50max	60max	50max	60max	
	START-UP TIME[ms]	100max (Minimum input, I <sub>o</sub> =100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Internally fixed (TRM pin open), ±5% adjustable by external VR								
PROTECTION CIRCUIT	OUTPUT VOLTAGE SETTING[V]	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	
	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically								
	OVERVOLTAGE PROTECTION	Works at 115 - 140% of rating (Total of +V and -V)								
ISOLATION	REMOTE ON/OFF	Between RC and -side of input:short - 1.2V . . . output ON, 2.4V - 5.5V(or open) . . . output OFF, Compatible to TTL								
	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
ENVIRONMENT	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	OPERATING TEMP.,HUMID.AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max								
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max								
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis								
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis								
SAFETY	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1								
OTHERS	CASE SIZE/WEIGHT	45 × 8.5 × 50mm (W × H × D) / 55g max								
	COOLING METHOD	Convection								

\*1 Rated input 5V, 12V, 24V or 48V DC, I<sub>o</sub>=100%.

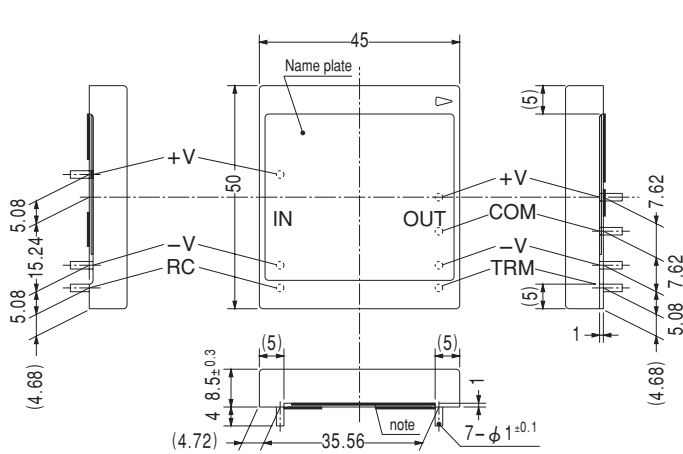
\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

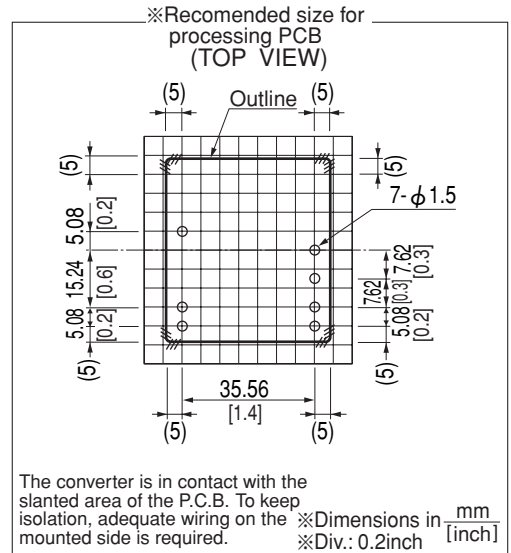
\* The output specification is at ±12V and ±15V.

\* Series/Parallel operation with other model is not possible.

External view



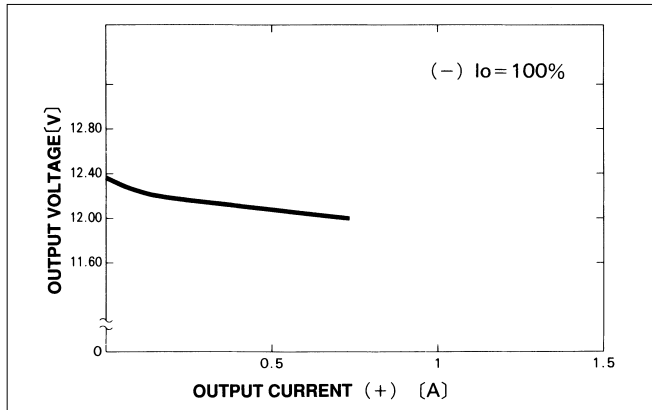
note) Internal parts  
 ※Weight: 55g or less.  
 ※Tolerance: ± 0.5  
 ※Case material: Aluminum



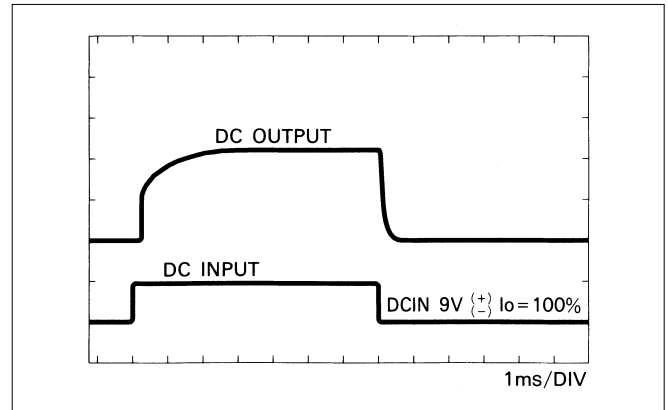
The converter is in contact with the slanted area of the P.C.B. To keep isolation, adequate wiring on the mounted side is required.  
 ※Dimensions in mm [inch]  
 ※Div.: 0.2inch

Performance data

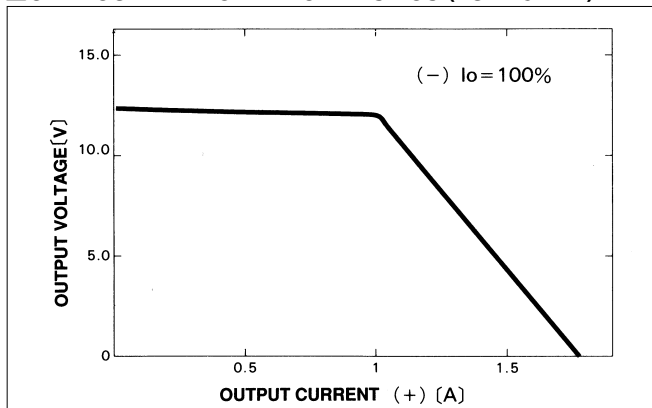
■ STATIC CHARACTERISTICS (ZUW151212)



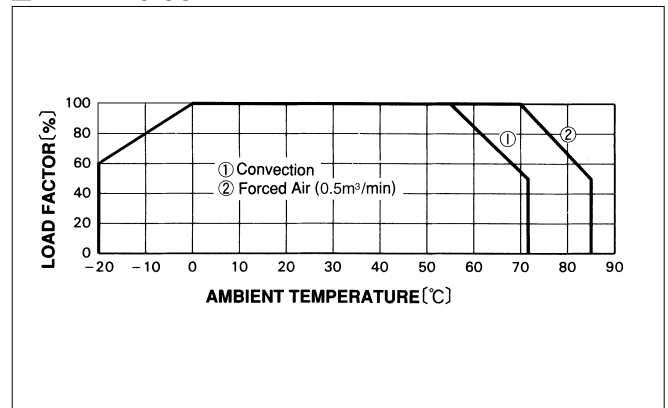
■ RISE TIME & FALL TIME (ZUW151212:+12V)



■ OVERCURRENT CHARACTERISTICS (ZUW151212)



■ DERATING CURVE



ZU/ZT

# ZUW25

**ZU W 25 12 12**

① ② ③ ④ ⑤



- ① Series name
- ② Dual output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage

MODEL	ZUW250512	ZUW250515	ZUW251212	ZUW251215	ZUW252412	ZUW252415	ZUW254812	ZUW254815	
<b>MAX OUTPUT WATTAGE[W]</b>	20.2	20.1	25.2	25.5	25.2	25.5	25.2	25.5	
<b>DC OUTPUT</b>	VOLTAGE[V]	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30
	CURRENT[A]	0.84	0.67	1.05	0.85	1.05	0.85	1.05	0.85

## SPECIFICATIONS

Output pins can be connected in series to make a 24V/30V output.

	MODEL	ZUW250512	ZUW250515	ZUW251212	ZUW251215	ZUW252412	ZUW252415	ZUW254812	ZUW254815	
<b>INPUT</b>	VOLTAGE[V]	DC4.5 - 9		DC9 - 18		DC18 - 36		DC36 - 75		
	CURRENT[A]	*1 4.92typ	4.90typ	2.47typ	2.50typ	1.23typ	1.25typ	0.62typ	0.63typ	
	EFFICIENCY[%]	*1 82typ	82typ	85typ	85typ	85typ	85typ	85typ	85typ	
<b>OUTPUT</b>	VOLTAGE[V]	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	±12 (+24)	±15 (+30)	
	CURRENT[A]	0.84	0.67	1.05	0.85	1.05	0.85	1.05	0.85	
	LINE REGULATION[mV]	60max	75max	60max	75max	60max	75max	60max	75max	
	LOAD REGULATION[mV]	600max	750max	600max	750max	600max	750max	600max	750max	
	RIPPLE[mVp-p]	*2 120max	120max	120max	120max	120max	120max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 150max	150max	150max	150max	150max	150max	150max	150max	
	TEMPERATURE REGULATION[mV]	0 to +55°C	150max	180max	150max	180max	150max	180max	150max	180max
	DRIFT[mV]	*3 50max	60max	50max	60max	50max	60max	50max	60max	
	START-UP TIME[ms]	100max (Minimum input, I <sub>o</sub> =100%)								
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Internally fixed (TRM pin open), ±5% adjustable by external VR								
<b>PROTECTION CIRCUIT</b>	OUTPUT VOLTAGE SETTING[V]	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	
	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically								
	OVERVOLTAGE PROTECTION	Works at 115 - 140% of rating (Total of +V and -V)								
<b>ISOLATION</b>	REMOTE ON/OFF	Between RC and -side of input:short - 1.2V . . . output ON, 2.4V - 5.5V(or open) . . . output OFF, Compatible to TTL								
	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
<b>ENVIRONMENT</b>	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)								
	OPERATING TEMP.,HUMID.AND ALTITUDE	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max								
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max								
	VIBRATION	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis								
	IMPACT	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis								
<b>SAFETY</b>	AGENCY APPROVALS	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1								
<b>OTHERS</b>	CASE SIZE/WEIGHT	65×8.5×50mm (W×H×D) / 65g max								
	COOLING METHOD	Convection								

\*1 Rated input 5V, 12V, 24V or 48V DC, I<sub>o</sub>=100%.

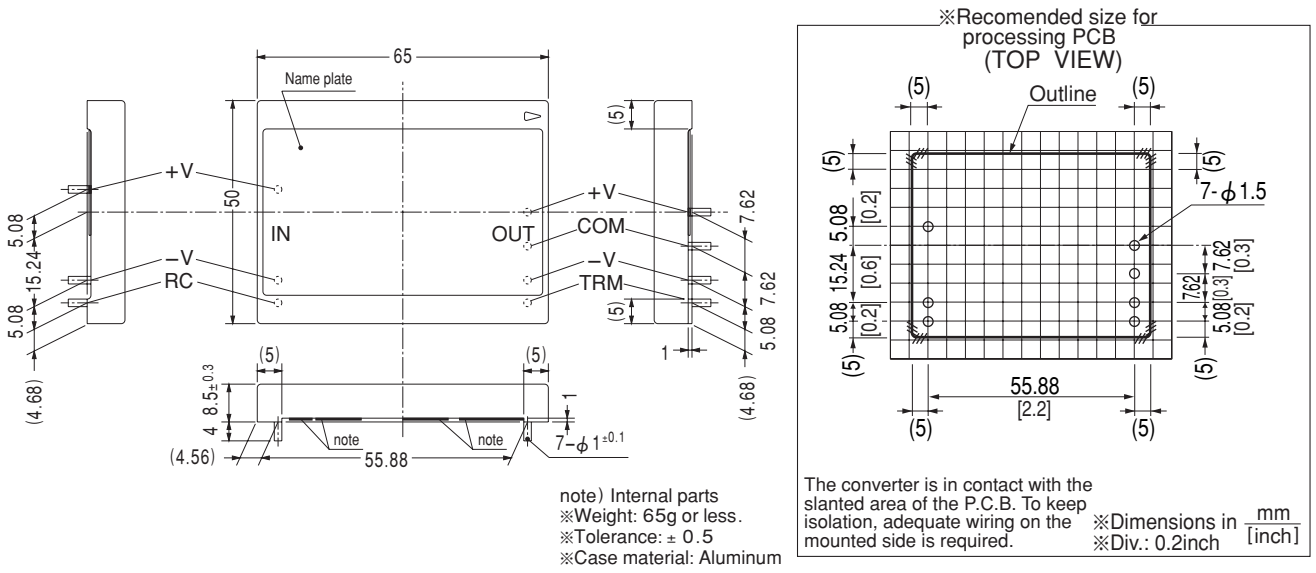
\*2 Measured by 20MHz oscilloscope.

\*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the input voltage applied at rated input/output.

\* The output specification is at ±12V and ±15V.

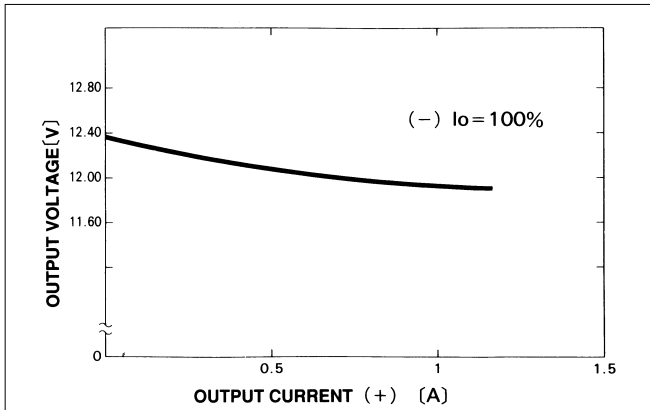
\* Series/Parallel operation with other model is not possible.

External view

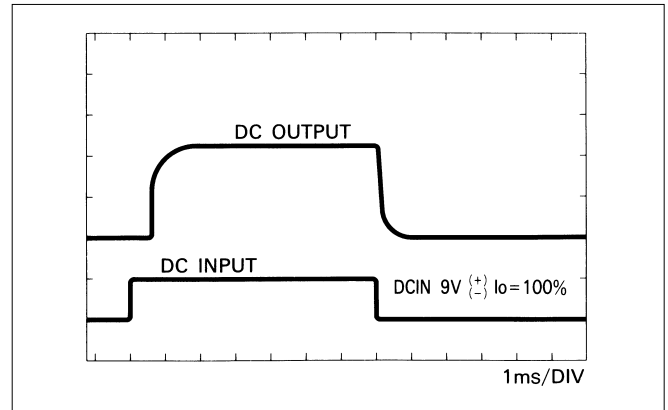


Performance data

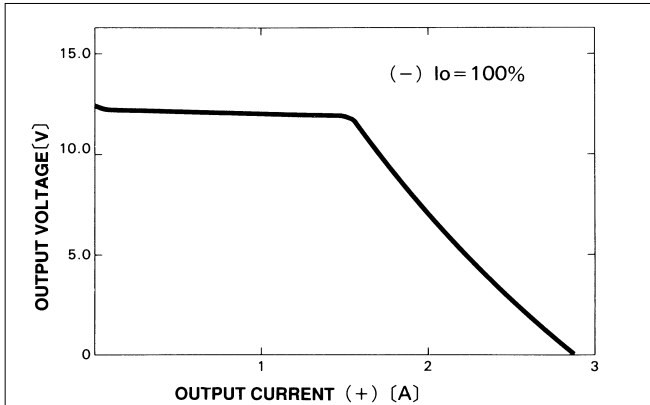
■ STATIC CHARACTERISTICS (ZUW251212)



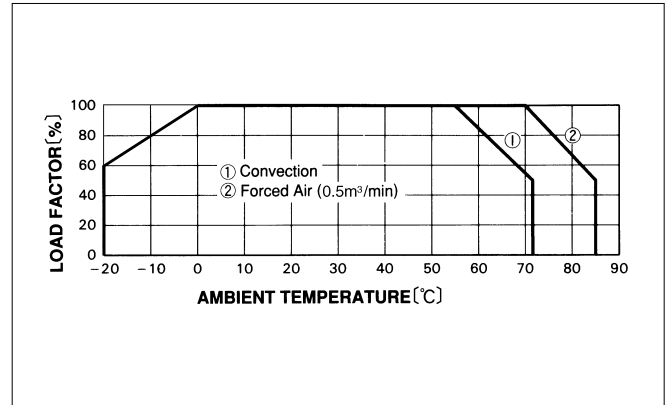
■ RISE TIME & FALL TIME (ZUW251212:+12V)



■ OVERCURRENT CHARACTERISTICS (ZUW251212)



■ DERATING CURVE



ZU/ZT

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