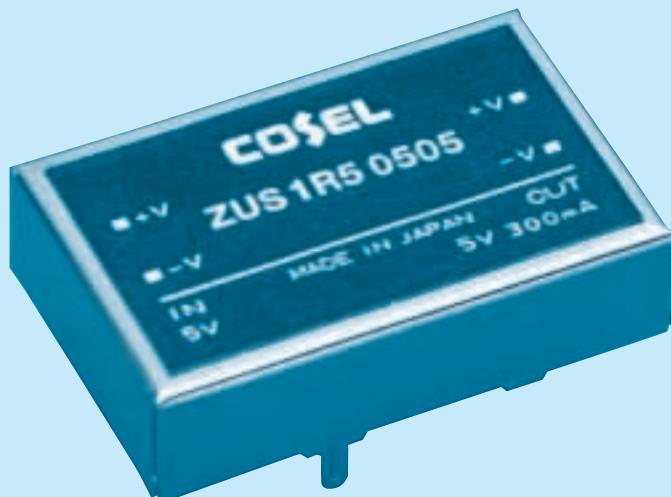


- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage



MODEL	ZUS1R50505	ZUS1R50512	ZUS1R50515	ZUS1R51205	ZUS1R51212	ZUS1R51215	ZUS1R52405	ZUS1R52412	ZUS1R52415	ZUS1R54805	ZUS1R54812	ZUS1R54815	
MAX OUTPUT WATTAGE[W]	1.50	1.56	1.50	1.50	1.56	1.50	1.50	1.56	1.50	1.50	1.56	1.50	
DC OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12	15
	CURRENT[A]	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10

## SPECIFICATIONS

	MODEL	ZUS1R50505	ZUS1R50512	ZUS1R50515	ZUS1R51205	ZUS1R51212	ZUS1R51215	ZUS1R52405	ZUS1R52412	ZUS1R52415	ZUS1R54805	ZUS1R54812	ZUS1R54815	
INPUT	VOLTAGE[V]	DC4.5 - 9			DC9 - 18			DC18 - 36			DC36 - 72			
	CURRENT[A]	*1 0.441typ	0.459typ	0.441typ	0.176typ	0.183typ	0.176typ	0.088typ	0.092typ	0.088typ	0.043typ	0.045typ	0.043typ	
	EFFICIENCY[%]	*1 68typ	68typ	68typ	71typ	71typ	71typ	71typ	71typ	71typ	73typ	73typ	73typ	
OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12	15	
	CURRENT[A]	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10	
	LINE REGULATION[mV]	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max	
	LOAD REGULATION[mV]	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	100max	120max	
	RIPPLE[mVp-p]	*2 80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	150max	180max
	DRIFT[mV]	*3 20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max	
	START-UP TIME[ms]	20max (Minimum input, lo=100%)												
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed												
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	4.85 - 5.25 11.40 - 12.60 14.25 - 15.75 4.85 - 5.25 11.40 - 12.60 14.25 - 15.75 4.85 - 5.25 11.40 - 12.60 14.25 - 15.75 4.85 - 5.25 11.40 - 12.60 14.25 - 15.75												
ISOLATION	INPUT-OUTPUT	Works over 105% of rating and recovers automatically												
	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, EN50178, 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												

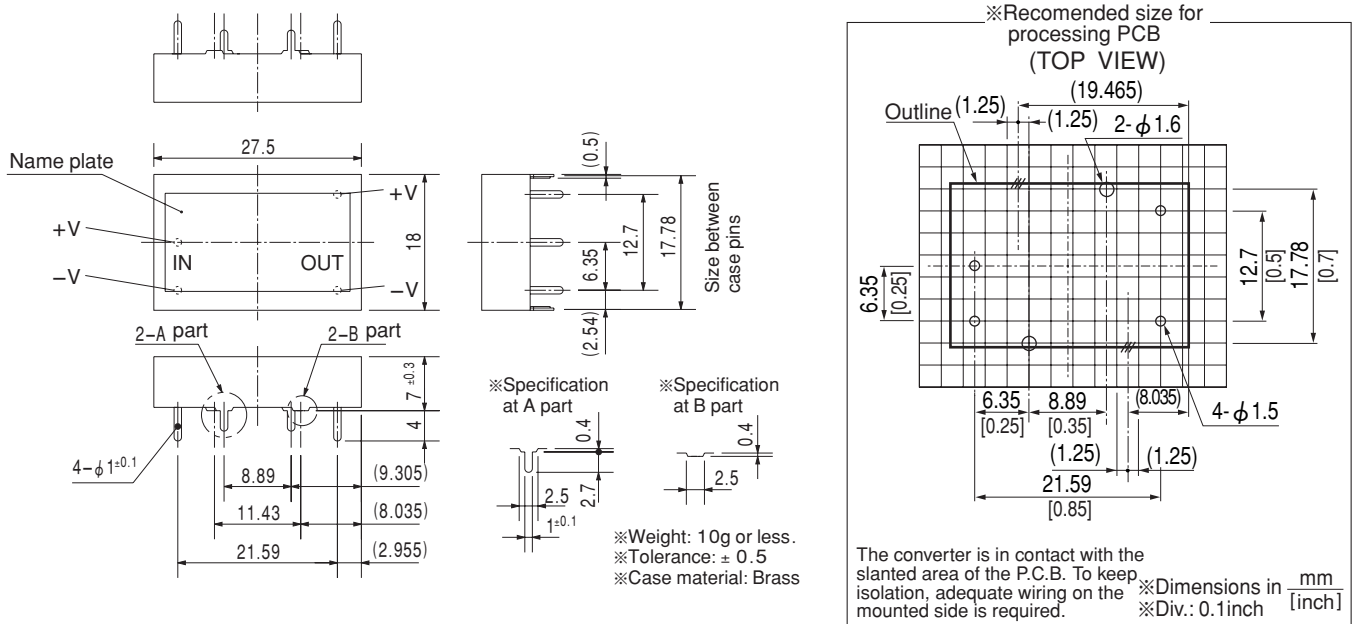
\*1 Rated input 5V, 12V, 24V or 48V DC lo=100%.

\*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.

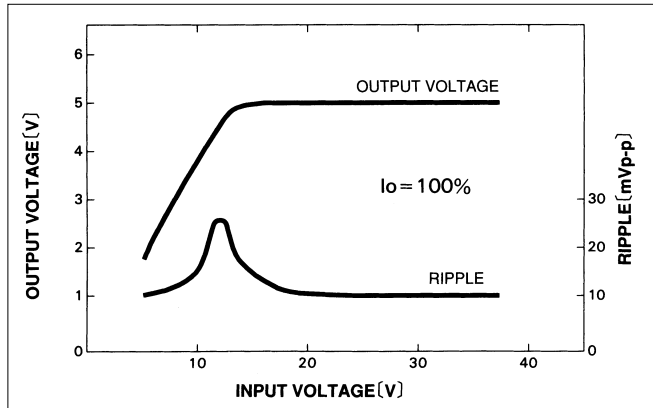
\* Series/Parallel operation with other model is not possible.

External view

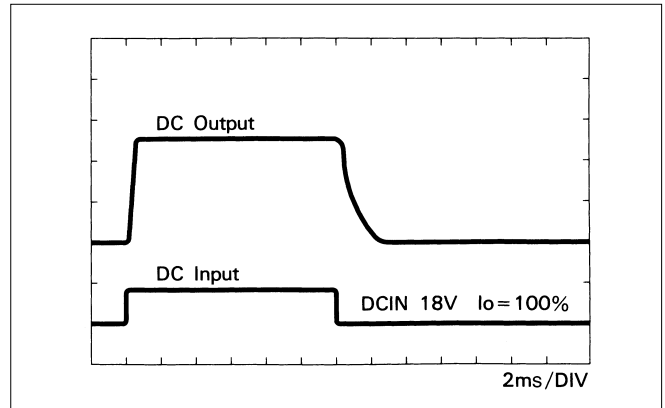


Performance data

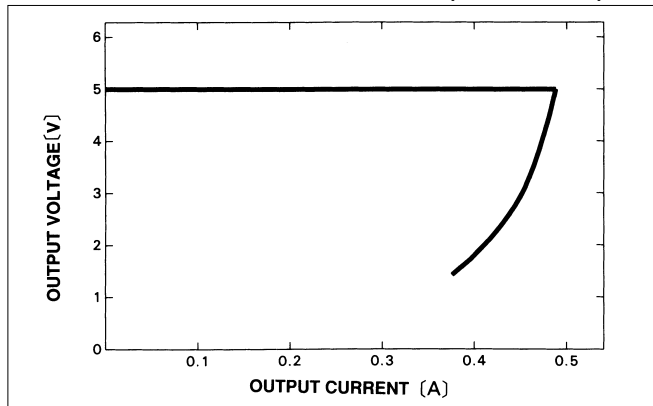
STATIC CHARACTERISTICS (ZUS1R52405)



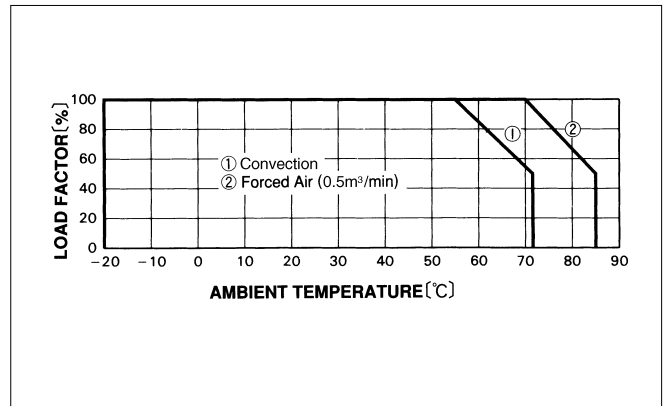
RISE TIME & FALL TIME (ZUS1R52405)



OVERCURRENT CHARACTERISTICS (ZUS1R52405)



DERATING CURVE



ZU/ZT

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



MODEL	ZUS30505	ZUS30512	ZUS30515	ZUS31205	ZUS31212	ZUS31215	ZUS32405	ZUS32412	ZUS32415	ZUS34805	ZUS34812	ZUS34815
MAX OUTPUT WATTAGE[W]	3	3	3	3	3	3	3	3	3	3	3	3
DC OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12
	CURRENT[A]	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25

## SPECIFICATIONS

	MODEL	ZUS30505	ZUS30512	ZUS30515	ZUS31205	ZUS31212	ZUS31215	ZUS32405	ZUS32412	ZUS32415	ZUS34805	ZUS34812	ZUS34815	
INPUT	VOLTAGE[V]	DC4.5 - 9			DC9 - 18			DC18 - 36			DC36 - 72			
	CURRENT[A]	*1 0.896typ	0.857typ	0.857typ	0.357typ	0.338typ	0.338typ	0.176typ	0.167typ	0.167typ	0.088typ	0.082typ	0.082typ	
	EFFICIENCY[%]	*1 67typ	70typ	70typ	70typ	74typ	74typ	71typ	75typ	75typ	71typ	76typ	76typ	
OUTPUT	VOLTAGE[V]	5	12	15	5	12	15	5	12	15	5	12	15	
	CURRENT[A]	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25	0.20	0.60	0.25	0.20	
	LINE REGULATION[mV]	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max	
	LOAD REGULATION[mV]	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	100max	120max	
	RIPPLE[mVp-p]	*2 80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	150max	180max
	DRIFT[mV]	*3 20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max	
	START-UP TIME[ms]	20max (Minimum input, lo=100%)												
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed												
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	4.85 - 5.25 11.40 - 12.60 14.25 - 15.75 4.85 - 5.25 11.40 - 12.60 14.25 - 15.75 4.85 - 5.25 11.40 - 12.60 14.25 - 15.75 4.85 - 5.25 11.40 - 12.60 14.25 - 15.75												
ISOLATION	INPUT-OUTPUT	Works over 105% of rating and recovers automatically												
	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												

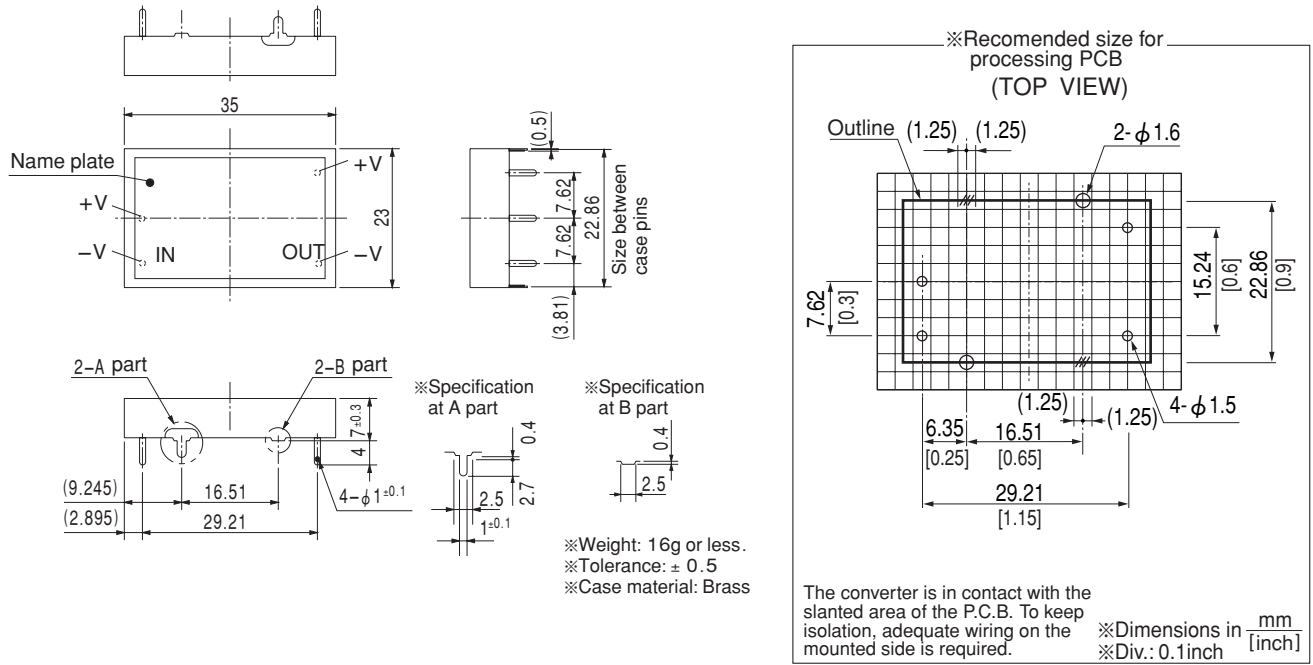
\*1 Rated input. 5V, 12V, 24V or 48V DC, lo=100%

\*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.

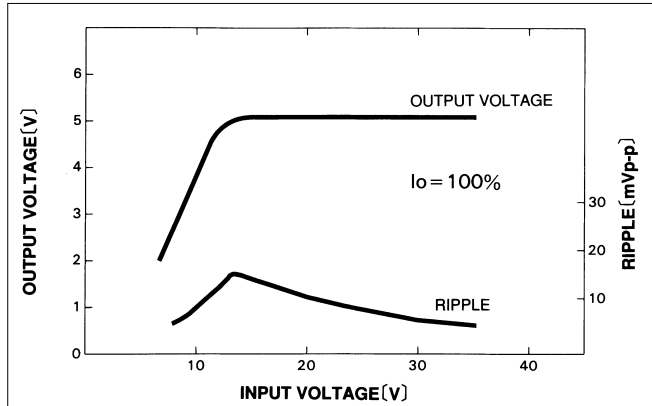
\* Series/Parallel operation with other model is not possible.

External view

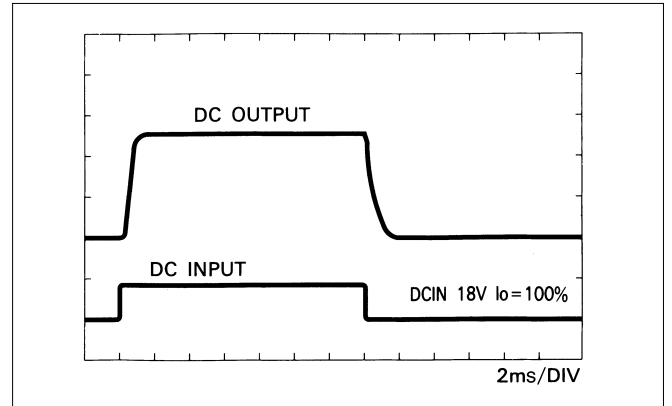


Performance data

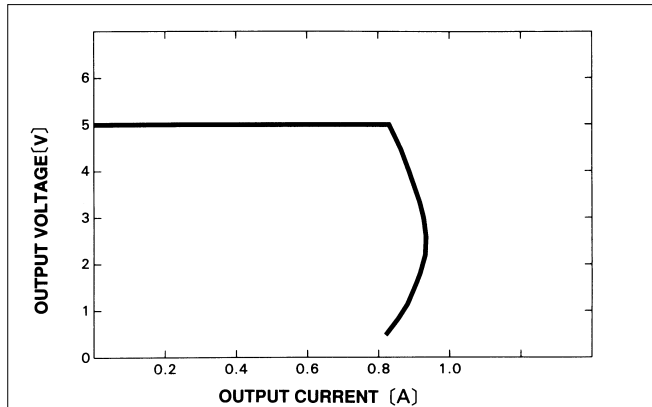
■STATIC CHARACTERISTICS (ZUS32405)



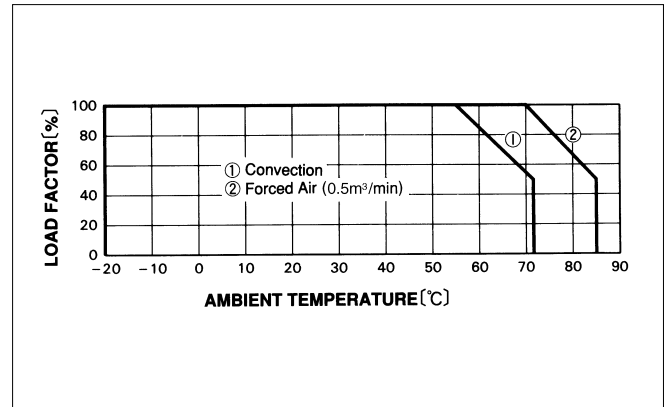
■RISE TIME & FALL TIME (ZUS32405)



■OVERCURRENT CHARACTERISTICS (ZUS32405)

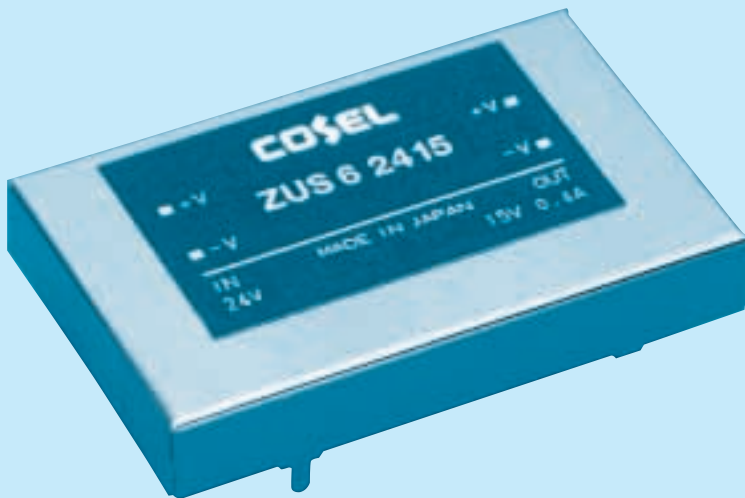


■DERATING CURVE



ZU/ZT

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



MODEL	ZUS6053R3	ZUS60505	ZUS60512	ZUS60515	ZUS61205	ZUS61212	ZUS61215	ZUS62405	ZUS62412	ZUS62415	ZUS6483R3	ZUS64805	ZUS64812	ZUS64815	
MAX OUTPUT WATTAGE[W]	3.3	5	6	6	6	6	6	6	6	6	3.96	6	6	6	
DC OUTPUT	VOLTAGE[V]	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15
	CURRENT[A]	1.0	1.0	0.5	0.4	1.2	0.5	0.4	1.2	0.5	0.4	1.2	1.2	0.5	0.4

## SPECIFICATIONS

	MODEL	ZUS6053R3	ZUS60505	ZUS60512	ZUS60515	ZUS61205	ZUS61212	ZUS61215	ZUS62405	ZUS62412	ZUS62415	ZUS6483R3	ZUS64805	ZUS64812	ZUS64815	
INPUT	VOLTAGE[V]	DC4.5 - 9				DC9 - 18			DC18 - 36			DC36 - 72				
	CURRENT[A]	*1 0.94typ	1.41typ	1.63typ	1.63typ	0.69typ	0.65typ	0.65typ	0.35typ	0.33typ	0.33typ	0.09typ	0.18typ	0.17typ	0.17typ	
	EFFICIENCY[%]	*1 70typ	71typ	74typ	74typ	73typ	78typ	78typ	73typ	78typ	78typ	73typ	73typ	78typ	78typ	
OUTPUT	VOLTAGE[V]	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15	
	CURRENT[A]	1.0	1.0	0.5	0.4	1.2	0.5	0.4	1.2	0.5	0.4	1.2	1.2	0.5	0.4	
	LINE REGULATION[mV]	20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max	
	LOAD REGULATION[mV]	40max	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	40max	100max	120max	
	RIPPLE[mVp-p]	*2 80max	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	80max	120max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	120max	150max	150max	
	TEMPERATURE REGULATION[mV]	-20 to +55°C	50max	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	50max	150max	180max
	DRIFT[mV]	*3 20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max	
	START-UP TIME[ms]	20max (Minimum input, lo=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 50M $\Omega$ min (20 $\pm$ 15°C)														
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (20 $\pm$ 15°C)														
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (20 $\pm$ 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 x 7 x 28mm (W x H x D) / 25g max														
	COOLING METHOD	Convection														

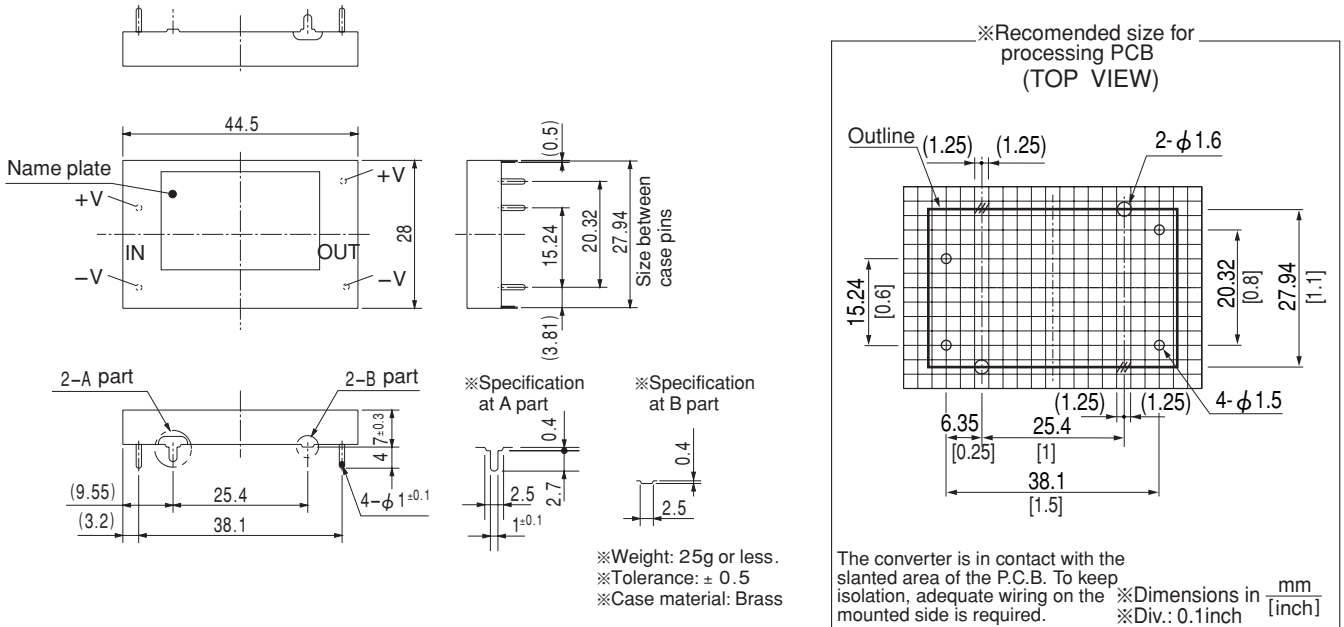
\*1 Rated input. 5V, 12V, 24V or 48V DC, lo=100%

\*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.

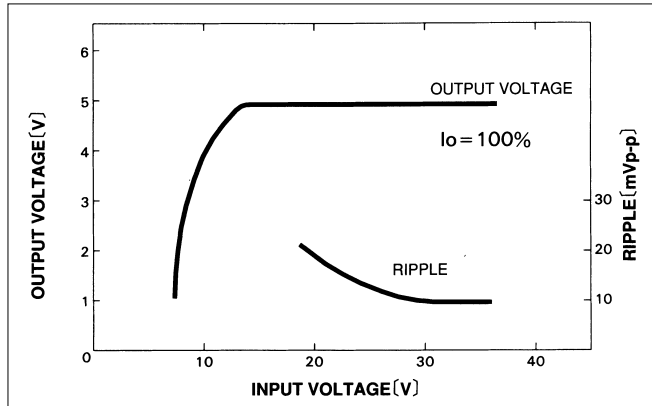
\* Series/Parallel operation with other model is not possible.

External view



Performance data

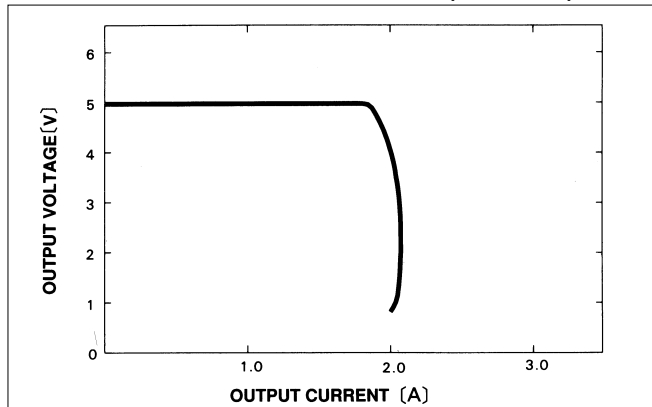
■STATIC CHARACTERISTICS (ZUS62405)



■RISE TIME & FALL TIME (ZUS62405)



■OVERCURRENT CHARACTERISTICS (ZUS62405)



■DERATING CURVE



ZU/ZT

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



MODEL	ZUS10053R3	ZUS100505	ZUS100512	ZUS100515	ZUS101205	ZUS101212	ZUS101215	ZUS102405	ZUS102412	ZUS102415	ZUS10483R3	ZUS104805	ZUS104812	ZUS104815	
<b>MAX OUTPUT WATTAGE[W]</b>	5.28	8.0	8.4	9.0	10.0	10.8	10.5	10.0	10.8	10.5	6.6	10.0	10.8	10.5	
<b>DC OUTPUT</b>	VOLTAGE[V]	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15
	CURRENT[A]	1.6	1.6	0.7	0.6	2.0	0.9	0.7	2.0	0.9	0.7	2.0	2.0	0.9	0.7

## SPECIFICATIONS

	MODEL	ZUS10053R3	ZUS100505	ZUS100512	ZUS100515	ZUS101205	ZUS101212	ZUS101215	ZUS102405	ZUS102412	ZUS102415	ZUS10483R3	ZUS104805	ZUS104812	ZUS104815	
<b>INPUT</b>	<b>VOLTAGE[V]</b>	DC4.5 - 9				DC9 - 18			DC18 - 36			DC36 - 72				
	<b>CURRENT[A]</b> *1	1.48typ	2.14typ	2.24typ	2.40typ	1.05typ	1.10typ	1.07typ	0.53typ	0.55typ	0.54typ	0.18typ	0.27typ	0.28typ	0.27typ	
	<b>EFFICIENCY[%]</b> *1	72typ	75typ	75typ	75typ	80typ	82typ	82typ	80typ	82typ	82typ	75typ	80typ	82typ	82typ	
<b>OUTPUT</b>	<b>VOLTAGE[V]</b>	3.3	5	12	15	5	12	15	5	12	15	3.3	5	12	15	
	<b>CURRENT[A]</b>	1.6	1.6	0.7	0.6	2.0	0.9	0.7	2.0	0.9	0.7	2.0	2.0	0.9	0.7	
	<b>LINE REGULATION[mV]</b>	20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max	
	<b>LOAD REGULATION[mV]</b>	40max	40max	100max	120max	40max	100max	120max	40max	100max	120max	40max	40max	100max	120max	
	<b>RIPPLE[mVp-p]</b> *2	80max	80max	120max	120max	80max	120max	120max	80max	120max	120max	80max	80max	120max	120max	
	<b>RIPPLE NOISE[mVp-p]</b> *2	120max	120max	150max	150max	120max	150max	150max	120max	150max	150max	120max	120max	150max	150max	
	<b>TEMPERATURE REGULATION[mV]</b> -20 to +55°C	50max	50max	150max	180max	50max	150max	180max	50max	150max	180max	50max	50max	150max	180max	
	<b>DRIFT[mV]</b> *3	20max	20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	20max	48max	60max	
	<b>START-UP TIME[ms]</b>	20max (Minimum input, lo=100%)														
	<b>OUTPUT VOLTAGE ADJUSTMENT RANGE[V]</b>	Fixed														
<b>PROTECTION CIRCUIT</b>	<b>OVERCURRENT PROTECTION</b>	Works over 105% of rating and recovers automatically														
<b>ISOLATION</b>	<b>INPUT-OUTPUT</b>	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)														
	<b>INPUT-CASE</b>	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)														
	<b>OUTPUT-CASE</b>	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)														
<b>ENVIRONMENT</b>	<b>OPERATING TEMP., HUMID. AND ALTITUDE</b>	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max														
	<b>STORAGE TEMP., HUMID. AND ALTITUDE</b>	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max														
	<b>VIBRATION</b>	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis														
	<b>IMPACT</b>	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis														
<b>SAFETY</b>	<b>AGENCY APPROVALS</b>	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1														
<b>OTHERS</b>	<b>CASE SIZE/WEIGHT</b>	45×7×35mm (W×H×D) / 40g max														
	<b>COOLING METHOD</b>	Convection														

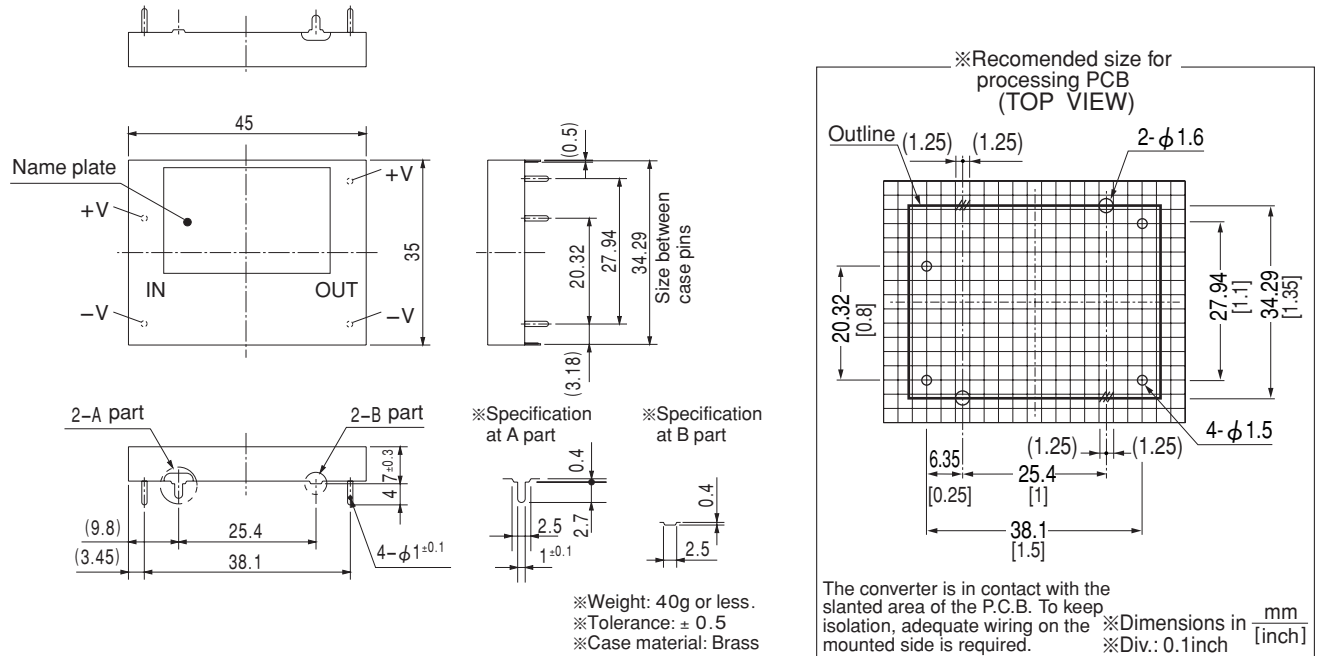
\*1 Rated input. 5V, 12V, 24V or 48V DC, lo=100%

\*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.

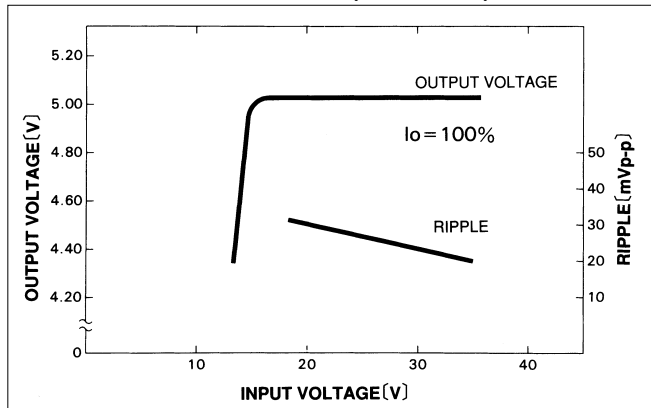
\* Series/Parallel operation with other model is not possible.

External view

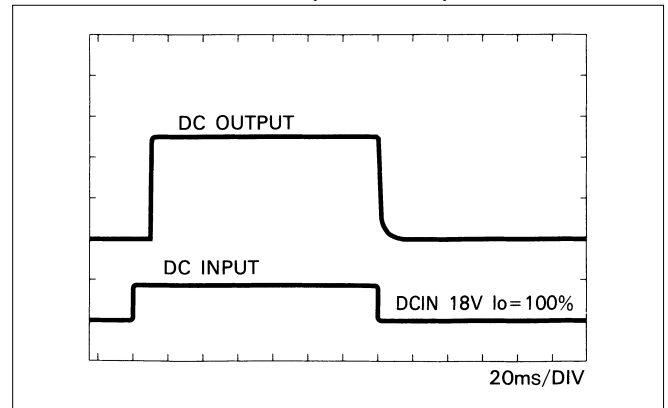


Performance data

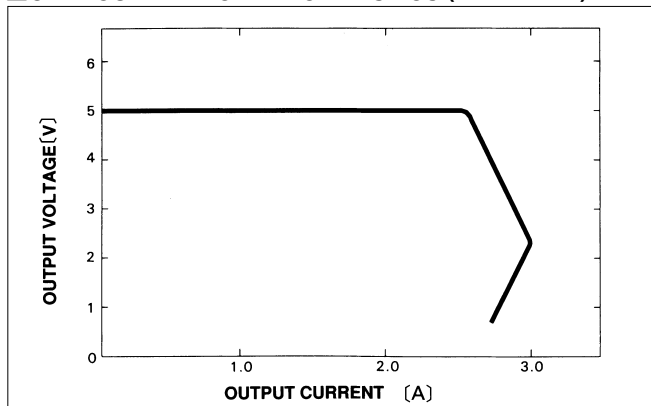
■STATIC CHARACTERISTICS (ZUS102405)



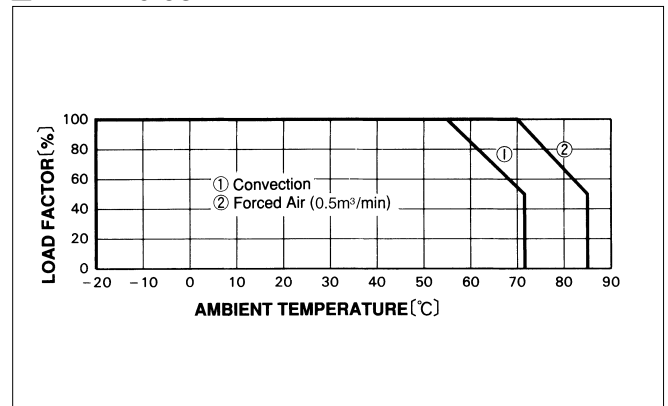
■RISE TIME & FALL TIME (ZUS102405)



■OVERCURRENT CHARACTERISTICS (ZUS102405)



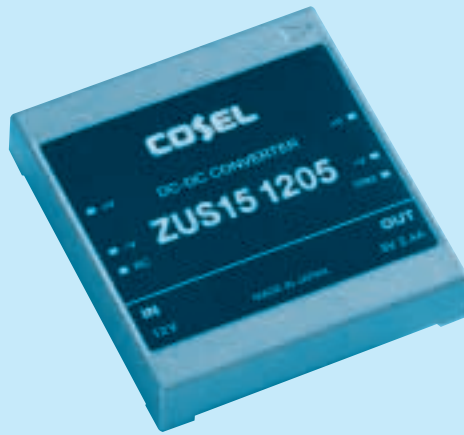
■DERATING CURVE



ZU/ZT



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



MODEL	ZUS15053R3	ZUS150505	ZUS150512	ZUS151205	ZUS151212	ZUS152405	ZUS152412	ZUS15483R3	ZUS154805	ZUS154812	
<b>MAX OUTPUT WATTAGE[W]</b>	6.6	10.0	12.0	12.0	15.6	12.0	15.6	7.92	12.0	15.6	
<b>DC OUTPUT</b>	<b>VOLTAGE[V]</b>	3.3	5	12	5	12	5	12	3.3	5	12
	<b>CURRENT[A]</b>	2.0	2.0	1.0	2.4	1.3	2.4	1.3	2.4	2.4	1.3

## SPECIFICATIONS

	MODEL	ZUS15053R3	ZUS150505	ZUS150512	ZUS151205	ZUS151212	ZUS152405	ZUS152412	ZUS15483R3	ZUS154805	ZUS154812	
<b>INPUT</b>	<b>VOLTAGE[V]</b>	DC4.5 - 9			DC9 - 18		DC18 - 36		DC36 - 75			
	<b>CURRENT[A]</b> *1	1.83typ	2.50typ	2.96typ	1.25typ	1.57typ	0.63typ	0.78typ	0.21typ	0.31typ	0.39typ	
	<b>EFFICIENCY[%]</b> *1	72typ	80typ	81typ	80typ	83typ	80typ	83typ	78typ	80typ	83typ	
<b>OUTPUT</b>	<b>VOLTAGE[V]</b>	3.3	5	12	5	12	5	12	3.3	5	12	
	<b>CURRENT[A]</b>	2.0	2.0	1.0	2.4	1.3	2.4	1.3	2.4	2.4	1.3	
	<b>LINE REGULATION[mV]</b>	20max	20max	48max	20max	48max	20max	48max	20max	20max	48max	
	<b>LOAD REGULATION[mV]</b>	40max	40max	100max	40max	100max	40max	100max	40max	40max	100max	
	<b>RIPPLE[mVp-p]</b> *2	80max	80max	120max	80max	120max	80max	120max	80max	80max	120max	
	<b>RIPPLE NOISE[mVp-p]</b> *2	120max	120max	150max	120max	150max	120max	150max	120max	120max	150max	
	<b>TEMPERATURE REGULATION[mV]</b> 0 to +55°C	50max	50max	150max	50max	150max	50max	150max	50max	50max	150max	
	<b>DRIFT[mV]</b> *3	20max	20max	48max	20max	48max	20max	48max	20max	20max	48max	
	<b>START-UP TIME[ms]</b>	100max (Minimum input, Io=100%)										
	<b>OUTPUT VOLTAGE ADJUSTMENT RANGE[V]</b>	Internally fixed (TRM pin open), adjustable by external VR										
<b>OUTPUT VOLTAGE SETTING[V]</b>	3.20 - 3.47	±5%						3.20 - 3.47	±5%			
<b>OVERCURRENT PROTECTION</b>	Works over 105% of rating and recovers automatically											
<b>OVERVOLTAGE PROTECTION</b>	4.0 - 5.25V	Works at 115 - 140% of rating							4.0 - 5.25V	Works at 115 - 140% of rating		
<b>REMOTE ON/OFF</b>	Between RC and -side of input: short - 1.2V · · · output ON, 2.4V - 5.5V(or open) · · · output OFF, Compatible to TTL											
<b>ISOLATION</b>	<b>INPUT-OUTPUT</b>	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)										
	<b>INPUT-CASE</b>	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)										
	<b>OUTPUT-CASE</b>	AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C)										
<b>ENVIRONMENT</b>	<b>OPERATING TEMP., HUMID. AND ALTITUDE</b>	-20 to +71°C, 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max										
	<b>STORAGE TEMP., HUMID. AND ALTITUDE</b>	-40 to +85°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max										
	<b>VIBRATION</b>	10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis										
	<b>IMPACT</b>	490.3m/s <sup>2</sup> (50G), 11ms, once each X, Y and Z axis										
<b>SAFETY</b>	<b>AGENCY APPROVALS</b>	UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with IEC60950-1										
<b>OTHERS</b>	<b>CASE SIZE/WEIGHT</b>	45×8.5×50mm (W×H×D) / 55g max										
	<b>COOLING METHOD</b>	Convection										

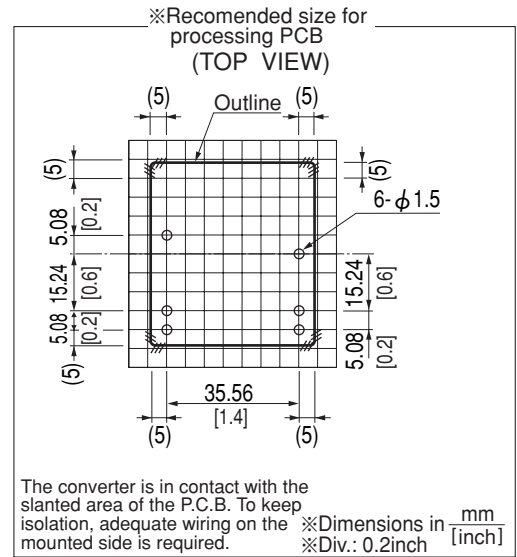
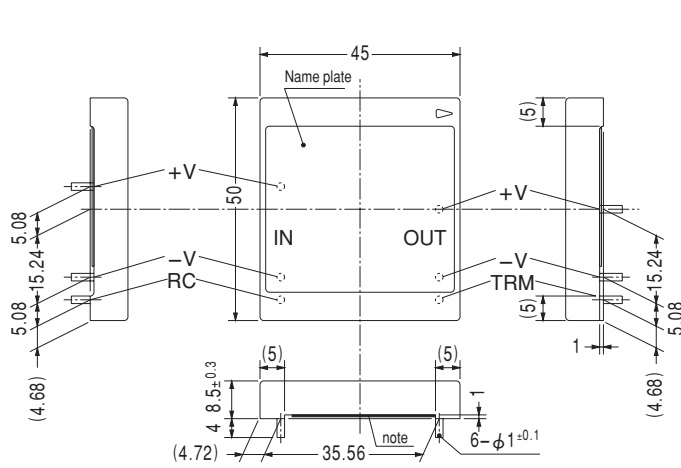
\*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%

\*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.

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

External view

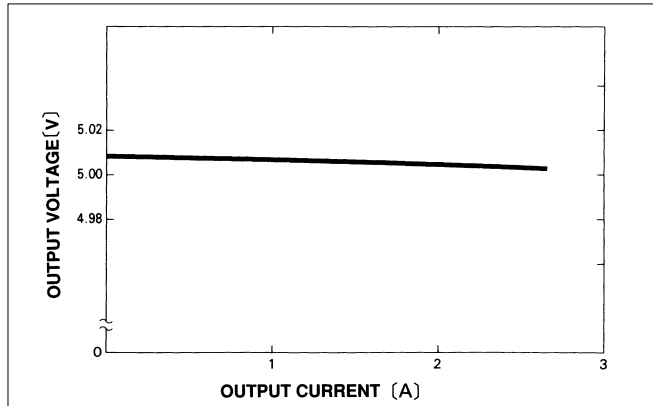


note) Internal parts  
 ※Weight: 55g or less.  
 ※Tolerance: ± 0.5  
 ※Case material: Aluminum

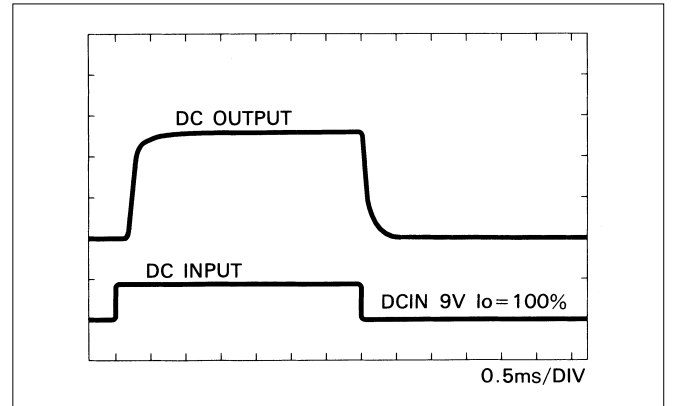
※Recommended size for processing PCB (TOP VIEW)  
 The converter is in contact with the slanted area of the P.C.B. To keep isolation, adequate wiring on the mounted side is required.  
 ※Dimensions in mm [inch]  
 ※Div.: 0.2inch

Performance data

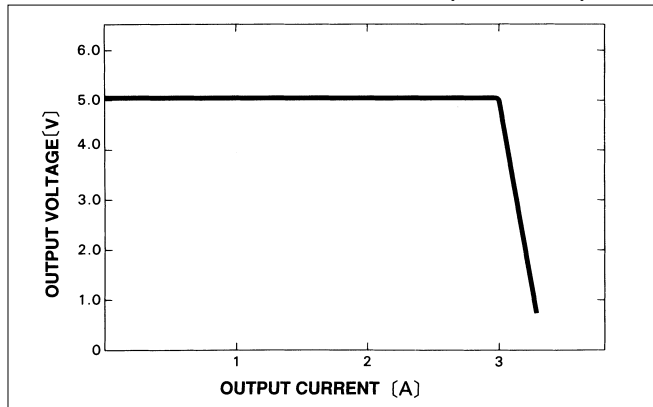
■STATIC CHARACTERISTICS (ZUS151205)



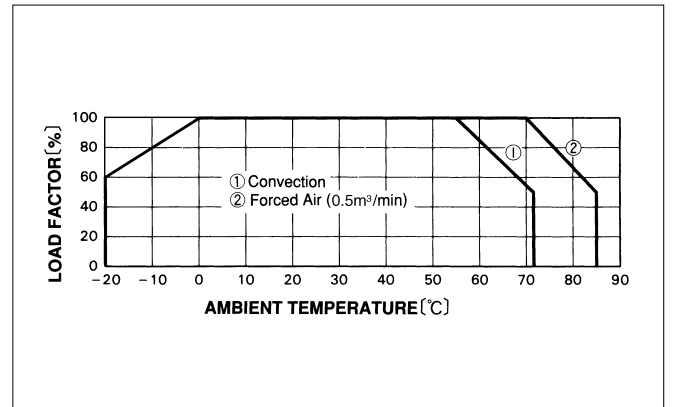
■RISE TIME & FALL TIME (ZUS151205)



■OVERCURRENT CHARACTERISTICS (ZUS151205)



■DERATING CURVE



ZU/ZT

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



MODEL	ZUS25053R3	ZUS250505	ZUS250512	ZUS251205	ZUS251212	ZUS252405	ZUS252412	ZUS25483R3	ZUS254805	ZUS254812	
MAX OUTPUT WATTAGE[W]	13.2	16.0	20.4	20.0	25.2	20.0	25.2	13.2	20.0	25.2	
DC OUTPUT	VOLTAGE[V]	3.3	5	12	5	12	5	12	3.3	5	12
	CURRENT[A]	4.0	3.2	1.7	4.0	2.1	4.0	2.1	4.0	4.0	2.1

SPECIFICATIONS

	MODEL	ZUS25053R3	ZUS250505	ZUS250512	ZUS251205	ZUS251212	ZUS252405	ZUS252412	ZUS25483R3	ZUS254805	ZUS254812	
INPUT	VOLTAGE[V]	DC4.5 - 9			DC9 - 18		DC18 - 36		DC36 - 75			
	CURRENT[A]	*1 3.66typ	4.00typ	4.98typ	2.03typ	2.47typ	1.02typ	1.23typ	0.35typ	0.51typ	0.62typ	
	EFFICIENCY[%]	*1 72typ	80typ	82typ	82typ	85typ	82typ	85typ	78typ	82typ	85typ	
OUTPUT	VOLTAGE[V]	3.3	5	12	5	12	5	12	3.3	5	12	
	CURRENT[A]	4.0	3.2	1.7	4.0	2.1	4.0	2.1	4.0	4.0	2.1	
	LINE REGULATION[mV]	20max	20max	48max	20max	48max	20max	48max	20max	20max	48max	
	LOAD REGULATION[mV]	40max	40max	100max	40max	100max	40max	100max	40max	40max	100max	
	RIPPLE[mVp-p]	*2 80max	80max	120max	80max	120max	80max	120max	80max	80max	120max	
	RIPPLE NOISE[mVp-p]	*2 120max	120max	150max	120max	150max	120max	150max	120max	120max	150max	
	TEMPERATURE REGULATION[mV] 0 to +55°C	50max	50max	150max	50max	150max	50max	150max	50max	50max	150max	
	DRIFT[mV]	*3 20max	20max	48max	20max	48max	20max	48max	20max	20max	48max	
	START-UP TIME[ms]	100max (Minimum input, Io=100%)										
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Internally fixed (TRM pin open), adjustable by external VR										
OUTPUT VOLTAGE SETTING[V]	3.20 - 3.47	±5%						3.20 - 3.47	±5%			
OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically											
OVERVOLTAGE PROTECTION	4.0 - 5.25V	Works at 115 - 140% of rating							4.0 - 5.25V	Works at 115 - 140% of rating		
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											
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	65×8.5×50mm (W×H×D) / 65g max										
	COOLING METHOD	Convection										

\*1 Rated input. 5V, 12V, 24V or 48V DC, Io=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.

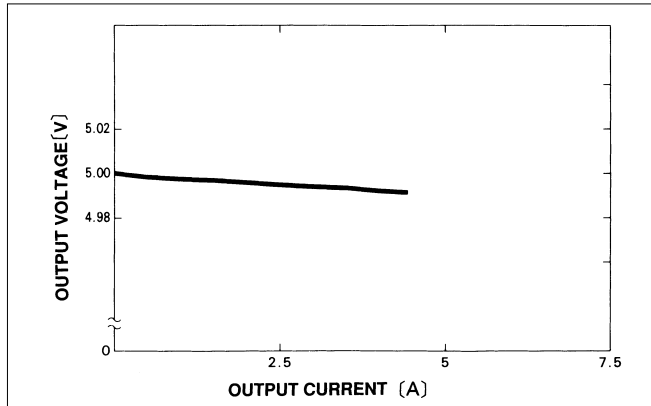
\* Series/Parallel operation with other model is not possible.

External view

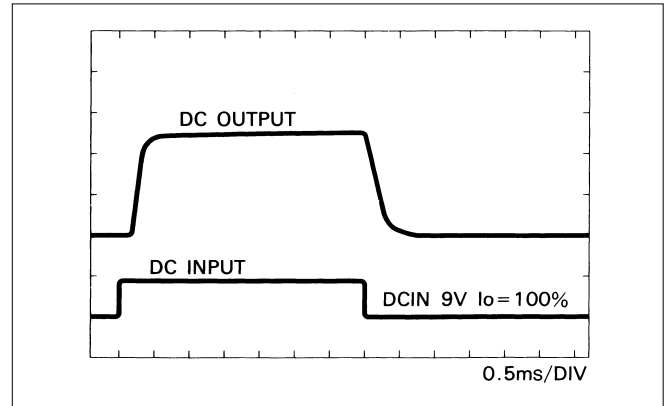


Performance data

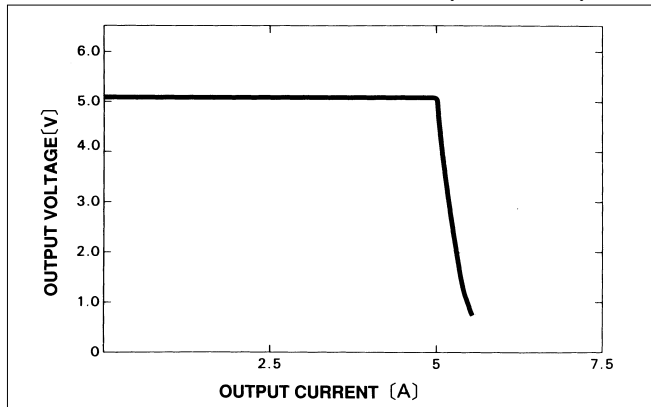
■STATIC CHARACTERISTICS (ZUS251205)



■RISE TIME & FALL TIME (ZUS251205)



■OVERCURRENT CHARACTERISTICS (ZUS251205)



■DERATING CURVE



ZUS25