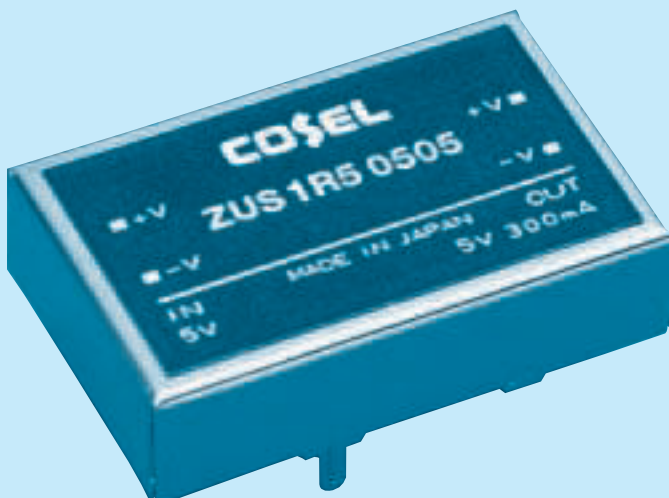




- 1 Series name
- 2 Single output
- 3 Output wattage
- 4 Input voltage
- 5 Output voltage

TRC Electronics, Inc.

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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
	CURRENT[A]	0.30	0.13	0.10	0.30	0.13	0.10	0.30	0.13	0.10	0.30	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
	DRIFT[mV]	*3 20max	48max	60max	20max	48max	60max	20max	48max	60max	20max	48max	60max
	START-UP TIME[ms]	20max (Minimum input, Io=100%)											
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed											
	OUTPUT VOLTAGE SETTING[V]	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
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically											
ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50MW min (20 t 15°C)											
	INPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MW min (20 t 15°C)											
	OUTPUT-CASE	AC500V 1minute, Cutoff current = 10mA, DC500V 50MW min (20 t 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 ² (10G), 3minutes period, 60minutes each along X, Y and Z axis											
	IMPACT	490.3m/s ² (50G), 11ms, once each X, Y and Z axis											
SAFETY	AGENCY APPROVALS	UL1950, EN60950, VDE0160, CSA C22.2 No.950 Complies with IEC60950											
OTHERS	CASE SIZE/WEIGHT	27.5 x 7 x 18mm (W x H x D) / 10g max											
	COOLING METHOD	Convection											

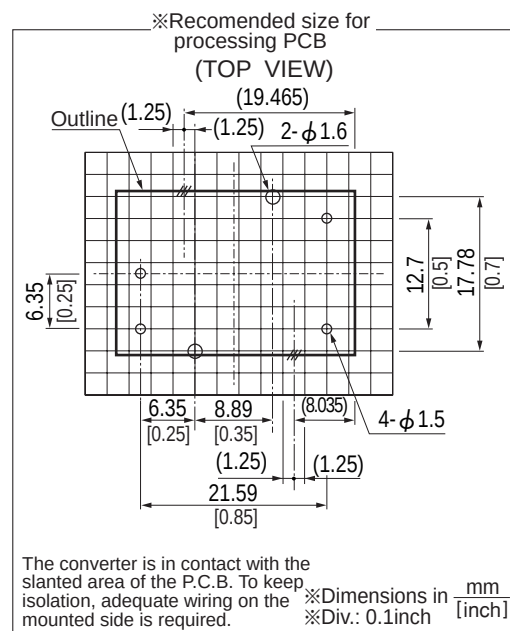
*1 Rated input 5V, 12V, 24V or 48V DC Io=100%.

*2 Measured by 20MHz oscilloscope.

*3 The drift is a change at 25°C of ambient temperature and 30 minutes - 8 hours after the in

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

put voltage applied at rated input/output.



Performance data

A graph showing the output voltage and ripple of the 7805 regulator as a function of input voltage. The x-axis is Input Voltage [V] from 0 to 40. The left y-axis is Output Voltage [V] from 0 to 6. The right y-axis is Ripple [mVp-p] from 0 to 30. The 'OUTPUT VOLTAGE' curve starts at ~1.8V at 5V input, rises to 5V at 15V input, and remains constant. The 'RIPPLE' curve starts at ~10 mVp-p at 5V input, peaks at ~25 mVp-p at 12V input, and then drops to ~10 mVp-p at 20V input, remaining constant thereafter. The load current is $I_o = 100\%$.

DCIN 18V lo=100%

2ms/DIV

The graph shows the Load Factor (%) on the y-axis (0 to 100) versus Ambient Temperature (°C) on the x-axis (-20 to 90). Two curves are plotted:

- ① Convection:** This curve starts at 100% load factor for temperatures up to 55°C. It then decreases linearly to approximately 50% at 72°C, where it drops vertically to 0%.
- ② Forced Air (0.5m³/min):** This curve starts at 100% load factor for temperatures up to 70°C. It then decreases linearly to approximately 50% at 85°C, where it drops vertically to 0%.

Ambient Temperature (°C)	Load Factor (%) - Convection (①)	Load Factor (%) - Forced Air (②)
-20	100	100
0	100	100
20	100	100
40	100	100
55	100	100
60	85	100
70	50	100
72	0	95
80	0	75
85	0	50
87	0	0