

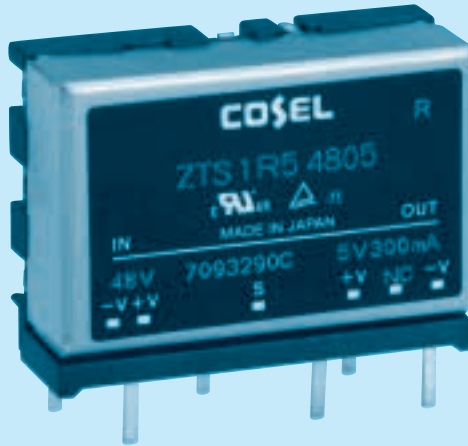
ZTS1R5

ZT S 1R5 12 05

① ② ③ ④ ⑤



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



| MODEL | ZTS1R50505 | ZTS1R50512 | ZTS1R50515 | ZTS1R51205 | ZTS1R51212 | ZTS1R51215 | ZTS1R52405 | ZTS1R52412 | ZTS1R52415 | ZTS1R54805 | ZTS1R54812 | ZTS1R54815 | |
|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------|
| 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 | ZTS1R50505 | ZTS1R50512 | ZTS1R50515 | ZTS1R51205 | ZTS1R51212 | ZTS1R51215 | ZTS1R52405 | ZTS1R52412 | ZTS1R52415 | ZTS1R54805 | ZTS1R54812 | ZTS1R54815 | |
|---------------------------|------------------------------------|--|---------------|-------------|---------------|---------------|-------------|---------------|---------------|-------------|---------------|---------------|------------|--------|
| 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, 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 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 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 | UL60950-1, C-UL, EN60950-1 Complies with IEC60950-1 | | | | | | | | | | | | |
| OTHERS | CASE SIZE/WEIGHT | 28×21×10mm (W×H×D) / 15g max | | | | | | | | | | | | |
| | COOLING METHOD | Convection | | | | | | | | | | | | |

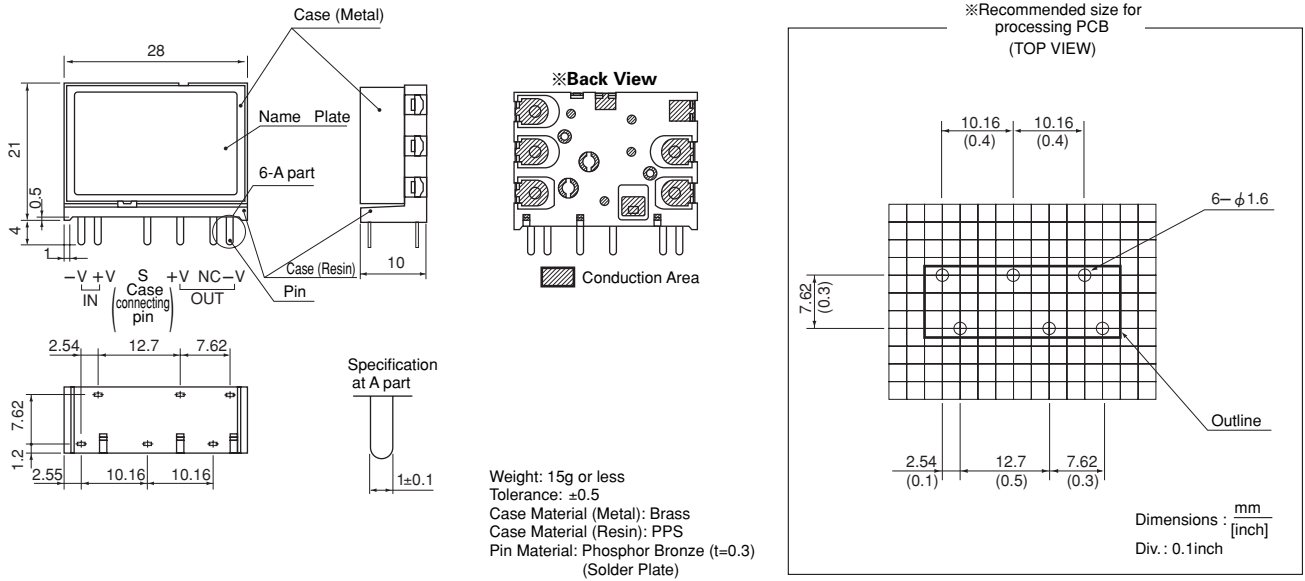
*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%

*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.

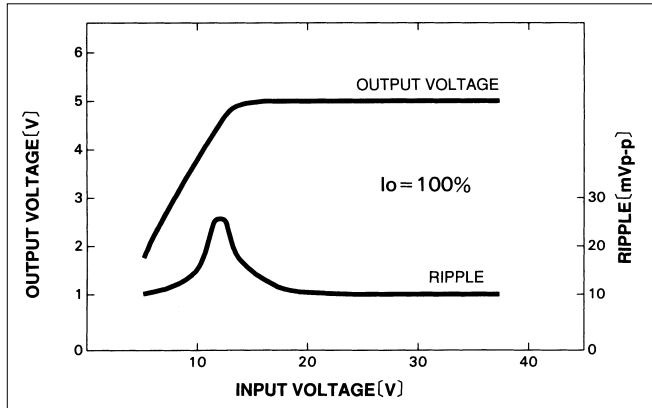
* Series/Parallel operation with other model is not possible.

External view

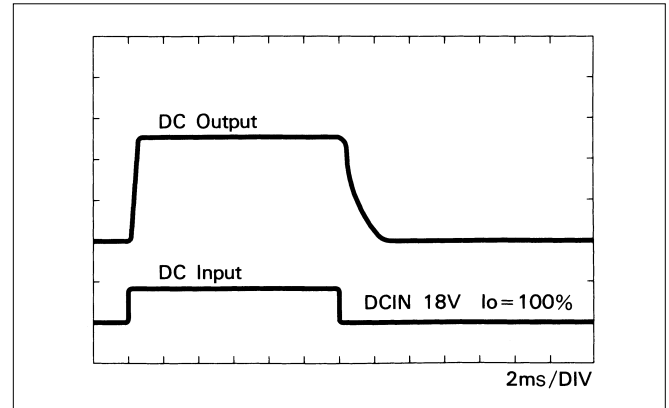


Performance data

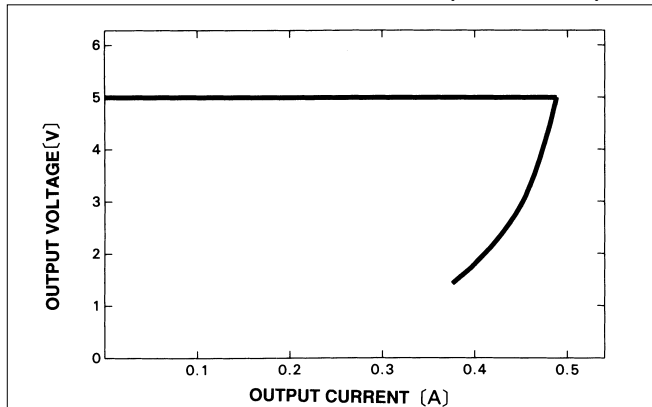
■ STATIC CHARACTERISTICS (ZTS1R52405)



■ RISE TIME & FALL TIME (ZTS1R52405)



■ OVERCURRENT CHARACTERISTICS (ZTS1R52405)



ZU/ZT

ZTS3

ZT S 3 12 05

① ② ③ ④ ⑤



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

| MODEL | ZTS30505 | ZTS30512 | ZTS30515 | ZTS31205 | ZTS31212 | ZTS31215 | ZTS32405 | ZTS32412 | ZTS32415 | ZTS34805 | ZTS34812 | ZTS34815 | |
|-----------------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|
| 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 | 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 |

SPECIFICATIONS

| | MODEL | ZTS30505 | ZTS30512 | ZTS30515 | ZTS31205 | ZTS31212 | ZTS31215 | ZTS32405 | ZTS32412 | ZTS32415 | ZTS34805 | ZTS34812 | ZTS34815 | |
|---------------------------|--------------------------------------|--|---------------|-------------|---------------|---------------|-------------|---------------|---------------|-------------|---------------|---------------|----------|--------|
| INPUT | VOLTAGE[V] | DC4.5 - 9 | | | DC9 - 18 | | | DC18 - 36 | | | DC36 - 72 | | | |
| | CURRENT[A] | *1 0.896typ | 0.857typ | | 0.357typ | 0.338typ | | 0.176typ | 0.167typ | | 0.088typ | 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, 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 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 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 | UL60950-1, C-UL, EN60950-1 Complies with IEC60950-1 | | | | | | | | | | | | |
| OTHERS | CASE SIZE/WEIGHT | 35.5×26×10mm (W×H×D) / 25g max | | | | | | | | | | | | |
| | COOLING METHOD | Convection | | | | | | | | | | | | |

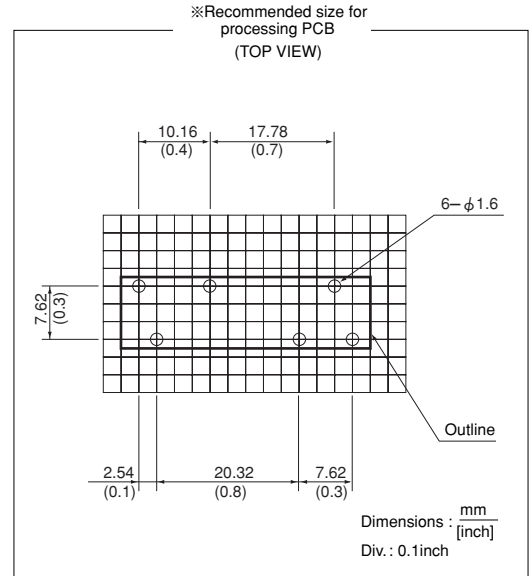
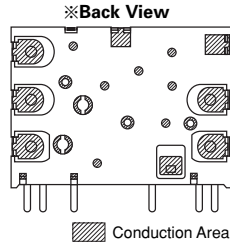
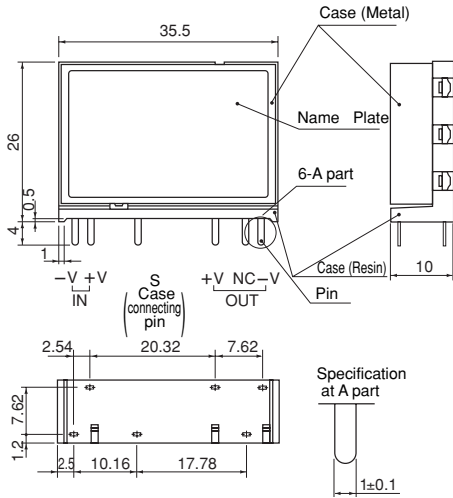
*1 Rated input. 5V, 12V, 24V or 48V DC, Io=100%

*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

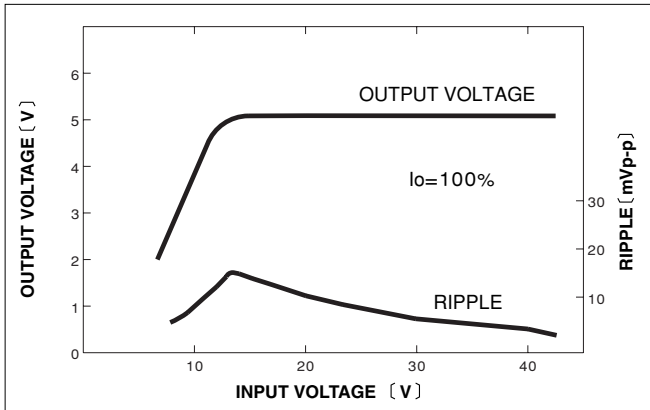


Weight: 25g or less
 Tolerance: ±0.5
 Case Material (Metal): Brass
 Case Material (Resin): PPS
 Pin Material: Phosphor Bronze (t=0.3)
 (Solder Plate)

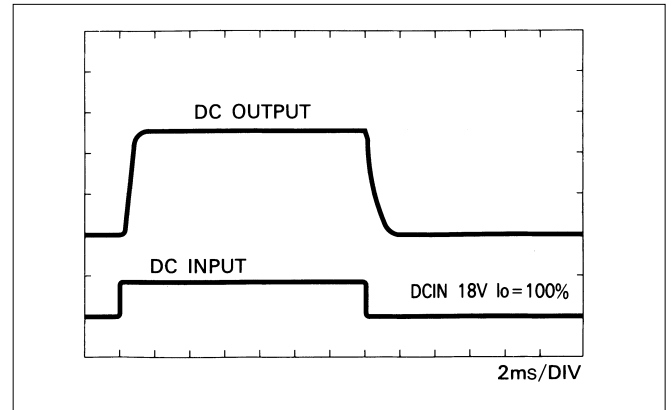
Dimensions : mm [inch]
 Div. : 0.1inch

Performance data

■ STATIC CHARACTERISTICS (ZTS32405)

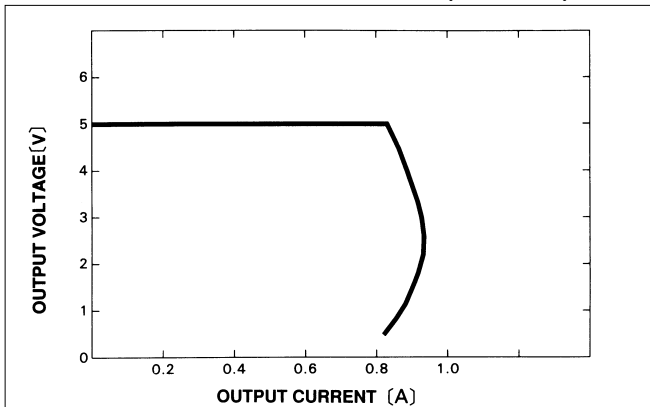


■ RISE TIME & FALL TIME (ZTS32405)



ZU/ZT

■ OVERCURRENT CHARACTERISTICS (ZTS32405)



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[ZTS1R52412](#) [ZTS34805](#) [ZTS31215](#) [ZTS1R52405-G](#) [ZTS1R50505](#) [ZTS32405-G](#) [ZTS32412](#) [ZTS1R50512](#)
[ZTS31212](#) [ZTS1R52405](#) [ZTS1R50515](#) [ZTS30515](#) [ZTS1R54812](#) [ZTS34815](#) [ZTS1R52415](#) [ZTS32415](#) [ZTS30512](#)
[ZTS1R51212](#) [ZTS1R54805](#)