V-INFINITY
a division of CUI INC



**PART NUMBER:** VAS1R5

**DESCRIPTION:** dc-dc converter

**features**
- **24 pin DIP package**
- **efficiency to 50%**
- **regulated outputs**
- **Pi input filter**
- **low ripple and noise**

RoHS

Discontinued

| model number[1, 2] | input voltage | output voltage | output current | input current no load | input current full load | efficiency |
|---|---|---|---|---|---|---|
| VAS1R5-S5-S5 | 5VDC | 5VDC | 300mA | 110mA | 620mA | 50% |
| VAS1R5-S5-S12 | 5VDC | 12VDC | 125mA | 110mA | 550mA | 50% |
| VAS1R5-S5-S15 | 5VDC | 15VDC | 100mA | 110mA | 550mA | 50% |
| VAS1R5-S5-D12 | 5VDC | ±12VDC | ±60mA | 110mA | 550mA | 50% |
| VAS1R5-S5-D15 | 5VDC | ±15VDC | ±50mA | 110mA | 550mA | 50% |
| VAS1R5-S12-S5 | 12VDC | 5VDC | 300mA | 40mA | 260mA | 50% |
| AS1R5-S12-S12 | 12VDC | 12VDC | 125mA | 40mA | 215mA | 50% |
| VAS1R5-S12-S15 | 12VDC | 15VDC | 100mA | 40mA | 215mA | 50% |
| VAS1R5-S12-D12 | 12VDC | ±12VDC | ±60mA | 40mA | 215mA | 50% |
| VAS1R5-S12-D15 | 12VDC | ±15VDC | ±50mA | 40mA | 215mA | 50% |
| VAS1R5-S24-S5 | 24VDC | 5VDC | 300mA | 20mA | 130mA | 50% |
| VAS1R5-S24-S12 | 24VDC | 12VDC | 125mA | 20mA | 115mA | 50% |
| VAS1R5-S24-S15 | 24VDC | 15VDC | 100mA | 20mA | 115mA | 50% |
| VAS1R5-S24-D12 | 24VDC | ±12VDC | ±60mA | 20mA | 115mA | 50% |
| VAS1R5-S24-D15 | 24VDC | ±15VDC | ±50mA | 20mA | 115mA | 50% |
| VAS1R5-S28-S5 | 28VDC | 5VDC | 300mA | 20mA | 110mA | 50% |
| VAS1R5-S28-S12 | 28VDC | 12VDC | 125mA | 20mA | 100mA | 50% |
| VAS1R5-S28-S15 | 28VDC | 15VDC | 100mA | 20mA | 100mA | 50% |
| VAS1R5-S28-D12 | 28VDC | ±12VDC | ±60mA | 20mA | 100mA | 50% |
| VAS1R5-S28-D15 | 28VDC | ±15VDC | ±50mA | 20mA | 100mA | 50% |
| VAS1R5-S48-S5 | 48VDC | 5VDC | 300mA | 15mA | 65mA | 50% |
| VAS1R5-S48-S12 | 48VDC | 12VDC | 125mA | 15mA | 60mA | 50% |
| VAS1R5-S48-S15 | 48VDC | 15VDC | 100mA | 15mA | 60mA | 50% |
| VAS1R5-S48-D12 | 48VDC | ±12VDC | ±60mA | 15mA | 60mA | 50% |
| VAS1R5-S48-D15 | 48VDC | ±15VDC | ±50mA | 15mA | 60mA | 50% |

**NOTES:**
1. suffix “H” for 3K Vdc isolation
2. suffix “-SMT” for SMT case style

V-INFINITY
a division of CUI INC



**PART NUMBER:** VAS1R5 **DESCRIPTION:** dc-dc converter

## INPUT

| | |
|---|---|
| input voltage range | ±10% |
| input filter | Pi type |

## OUTPUT

| | |
|---|---|
| voltage accuracy | ±4.0% max. |
| temperature coefficient | ±0.02% / °C max. |
| ripple and noise, 20MHz BW | 50mV p-p max. |
| short circuit protection | momentary |
| line regulation | ±0.3% |
| load regulation | ±0.5% |

## GENERAL SPECIFICATIONS

| | |
|---|---|
| efficiency | 50% |
| isolation capacitance | 30pF |
| switching frequency | 20kHz min. |
| isolation resistance | $10^9$Ohms |
| operating temperature range | -25°C to +71°C |
| storage temperature | -40°C to +100°C |
| case temp.(plastic case) | 95°Cmax. |
| (copper case) | 100°Cmax. |
| cooling | free air convection |
| dimensions | 1.25x0.8x0.4 inches (31.8x20.3x10.2mm) |

## ISOLATION VOLTAGE

| | |
|---|---|
| 500 VDC min | standard models |
| 3K VDC min | suffix “H” models |

## CASE MATERIAL

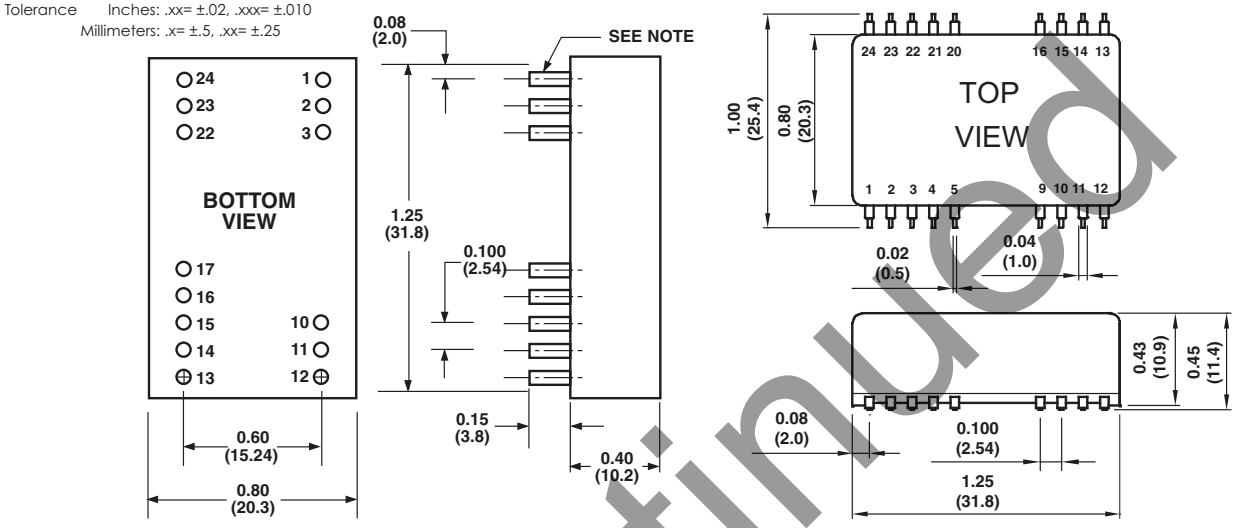
| | |
|---|---|
| standard models | non-conductive black plastic |
| suffix “M” models | black coated copper with non-conductive base |

Discontinued

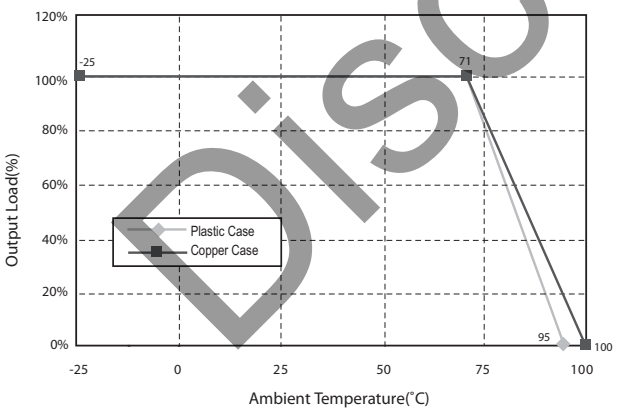
**PART NUMBER:** VAS1R5 **DESCRIPTION:** dc-dc converter

## DIMENSIONS (mm)

NOTE:Pin Size is .02" Inch (0.5mm) DIA
All Dimensions In Inches(mm)
Tolerance Inches: .xx= ±.02, .xxx= ±.010
Millimeters: .x= ±.5, .xx= ±.25




## DERATING CURVE




## PIN CONNECTIONS

| 500 VDC | | | | | 1.5K & 3K VDC | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Pin | Single Output | | Dual Output | | Pin | Single Output | | Dual Output | |
| | DIP | SMD | DIP | SMD | | DIP | SMD | DIP | SMD |
| 1,24 | +V Input | | +V Input | | 1,2,3 | +V Input | | +V Input | |
| 2,23 | NC | | -V Output | | 22,23,24 | -V Input | | -V Input | |
| 3,22 | NC | | Common | | 4 | NP | NC | NP | NC |
| 4,5 | NP | NC | NP | NC | 5 | NP | NC | NP | NC |
| 9 | NP | NC | NP | NC | 9 | NP | NC | NP | NC |
| 10 | -V Output | | Common | | 10,11 | NP | NC | Go Output | |
| 11 | +V Output | | +V Output | | 12 | -V Output | | -TP | |
| 12,13 | -V Input | | -V Input | | 13 | +V Output | | -V Output | |
| 14 | +V Output | | +V Output | | 14 | NP | NC | NP | NC |
| 15 | -V Output | | Common | | 15 | NP | NC | +V Output | |
| 16 | NP | NC | NP | NC | 16 | NP | NC | +TP | |
| 17 | NP | | NP | | 17 | +TP | NP | NP | |
| 20,21 | NP | NC | NP | NC | 20,21 | NP | NC | NP | NC |

Discontinued