

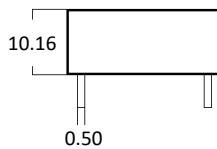
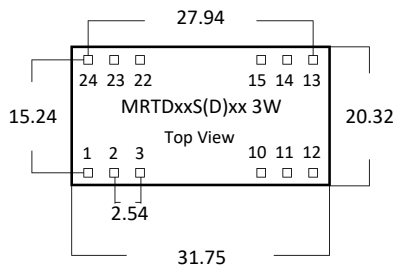


- 2:1 Voltage Input Range
- 24-Pin DIP
- Both Metal Case and Plastic Case Available
- Regulated
- MTBF: 2.000.000 Calculated Hours
- 2W, 5W, 6W also Available
- 3000V Isolation Available

| Electrical Specifications | | |
|----------------------------|---------------------------|--|
| Electrical Specification | Input Voltage: | See Product Chart Page 2 |
| | Output Voltage (Vout): | See Product Chart Page 2 |
| | Switch Frequency: | 150kHz to 200kHz |
| | Ripple & Noise: | Max. 50mVp-p |
| | Efficiency: | Up to 85% |
| | Output Load Efficiency: | ≤ ±1% (0% to 100% Load) |
| | TEMP. Coefficient: | ≤ ±0.02% °C (Celsius) |
| | MTBF: | 2.000.000 Hours |
| Protection (Auto Recovery) | Isolation I/O: | 1000V / 0.5mA for 1min (Up to 3000V Isolation Available) |
| | Short Circuit Protection: | Short Circuit (1sec) |
| | Over Load Protection: | Yes |
| | Over TEMP. Protection: | Yes |
| Certifications & EMC | Approvals: | CE / RoHS |
| | EMC | EN61000 |
| Environmental | Operating TEMP.: | -45°C to +85°C |
| | Storage TEMP.: | -45°C to +125°C |
| | Cooling: | Natural Cooling |
| Dimension & Material | Case Material: | Metal or Plastic |
| | Case Size (L x W x H): | 31.75 x 20.32 x 10.16mm |
| | Weight: | 15g (±0.5) |
| | Soldering Temperature: | ≤10sec 300°C Max. |

Note - Non Load Operation for a Long time is Not Recommended
For Complete Datasheet/Specification and Drawing Please Contact Power Outlet

Drawing & Measurements: mm



MRTDxxSxx = Single Output

| Pin | Function | Pin | Function |
|-----|----------|-----|----------|
| 1 | Vin | 13 | GND |
| 2 | NC | 14 | +Vout |
| 3 | NC | 15 | 0V |
| 10 | 0V | 22 | NC |
| 11 | +Vout | 23 | NC |
| 12 | GND | 24 | Vin |

MRTDxxDxx = Dual Output

| Pin | Function | Pin | Function |
|-----|----------|-----|----------|
| 1 | Vin | 13 | GND |
| 2 | -Vout | 14 | +Vout |
| 3 | 0V | 15 | 0V |
| 10 | 0V | 22 | 0V |
| 11 | +Vout | 23 | -Vout |
| 12 | GND | 24 | Vin |

Product Chart

| Model | Input Voltage (Vdc) | Output Voltage (Vout) | Load Current (mA) | Efficiency (%) | Ripple & Noise (mVp-p Max.) |
|---------------|-----------------------|-----------------------|-------------------|----------------|-----------------------------|
| MRTD05S3.3 3W | 5Vdc (4.5-9Vdc) | 3.3 | 909 | 73 | 50 |
| MRTD05S05 3W | | 5 | 600 | 80 | 50 |
| MRTD05S12 3W | | 12 | 250 | 85 | 50 |
| MRTD05S15 3W | | 15 | 200 | 85 | 50 |
| MRTD05S24 3W | | 24 | 125 | 85 | 50 |
| MRTD12S3.3 3W | 12Vdc (9-18Vdc) | 3.3 | 909 | 73 | 50 |
| MRTD12S05 3W | | 5 | 600 | 80 | 50 |
| MRTD12S12 3W | | 12 | 250 | 85 | 50 |
| MRTD12S15 3W | | 15 | 200 | 85 | 50 |
| MRTD12S24 3W | | 24 | 125 | 85 | 50 |
| MRTD24S3.3 3W | 24Vdc (18-36Vdc) | 3.3 | 909 | 73 | 50 |
| MRTD24S05 3W | | 5 | 600 | 80 | 50 |
| MRTD24S12 3W | | 12 | 250 | 85 | 50 |
| MRTD24S15 3W | | 15 | 200 | 85 | 50 |
| MRTD24S24 3W | | 24 | 125 | 85 | 50 |
| MRTD48S3.3 3W | 48Vdc (36-72Vdc) | 3.3 | 909 | 73 | 50 |
| MRTD48S05 3W | | 5 | 600 | 80 | 50 |
| MRTD48S12 3W | | 12 | 250 | 85 | 50 |
| MRTD48S15 3W | | 15 | 200 | 85 | 50 |
| MRTD48S24 3W | | 24 | 125 | 85 | 50 |
| MRTD110S05 3W | 110Vdc (70-150Vdc) | 5 | 600 | 80 | 50 |
| MRTD110S12 3W | | 12 | 250 | 85 | 50 |
| MRTD110S24 3W | | 24 | 125 | 85 | 50 |
| | | | | | |
| MRTD05D3.3 3W | 5Vdc (4.5-9Vdc) | ±3.3 | ±454 | 73 | 50 |
| MRTD05D05 3W | | ±5 | ±300 | 80 | 50 |
| MRTD05D12 3W | | ±12 | ±125 | 85 | 50 |
| MRTD05D15 3W | | ±15 | ±100 | 85 | 50 |
| MRTD05D24 3W | | ±24 | ±63 | 85 | 50 |
| MRTD12D3.3 3W | 12Vdc (9-18Vdc) | ±3.3 | ±454 | 73 | 50 |
| MRTD12D05 3W | | ±5 | ±300 | 80 | 50 |
| MRTD12D12 3W | | ±12 | ±125 | 85 | 50 |
| MRTD12D15 3W | | ±15 | ±100 | 85 | 50 |
| MRTD12D24 3W | | ±24 | ±63 | 85 | 50 |
| MRTD24D3.3 3W | 24Vdc (18-36Vdc) | ±3.3 | ±454 | 73 | 50 |
| MRTD24D05 3W | | ±5 | ±300 | 80 | 50 |
| MRTD24D12 3W | | ±12 | ±125 | 85 | 50 |
| MRTD24D15 3W | | ±15 | ±100 | 85 | 50 |
| MRTD24D24 3W | | ±24 | ±63 | 85 | 50 |
| MRTD48D3.3 3W | 48Vdc (36-72Vdc) | ±3.3 | ±454 | 73 | 50 |
| MRTD48D05 3W | | ±5 | ±300 | 80 | 50 |
| MRTD48D12 3W | | ±12 | ±125 | 85 | 50 |
| MRTD48D15 3W | | ±15 | ±100 | 85 | 50 |
| MRTD48D24 3W | | ±24 | ±63 | 85 | 50 |
| MRTD110D05 3W | 110Vdc (70-150Vdc) | ±5 | ±300 | 80 | 50 |
| MRTD110D12 3W | | ±12 | ±125 | 85 | 50 |
| MRTD110D24 3W | | ±24 | ±63 | 85 | 50 |

* For 3000V Isolation Add Suffix "H3". Example: MRTDxxS(D)xx-H3 3W