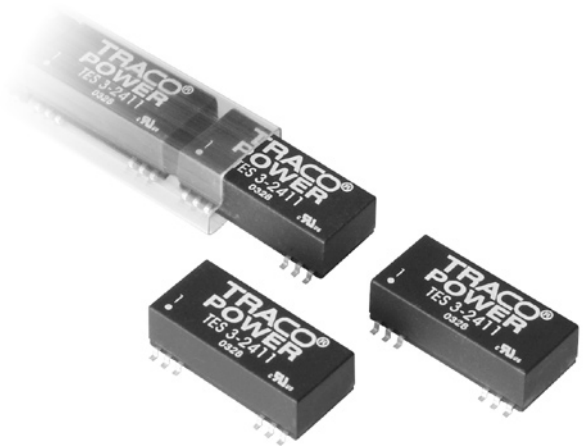


Features

- ◆ SMD package
- ◆ Wide 2:1 input voltage range
- ◆ I/O isolation 1500VDC
- ◆ Under voltage lockout
- ◆ Operating temp. range -40°C to 71°C
- ◆ Short circuit protection
- ◆ High accuracy of pin co-planarity
- ◆ Lead free design – RoHS compliant
- ◆ 3-years product warranty



The TES-3 series is a family of high performance 3W dc-dc converter modules featuring wide 2:1 input voltage ranges. The 15 models come in a low profile molded SMD package with dimensions of 32.3 x 14.8 x 10.2 mm. A high efficiency allows an operating temperature range of -40°C to 71°C at full load. This product is qualified for soldering in a high temperature lead-free reflow solder process. Typical applications for the converters are battery operated equipment, instrumentation, communication and industrial electronics, everywhere where an isolated, tightly regulated voltage is required.

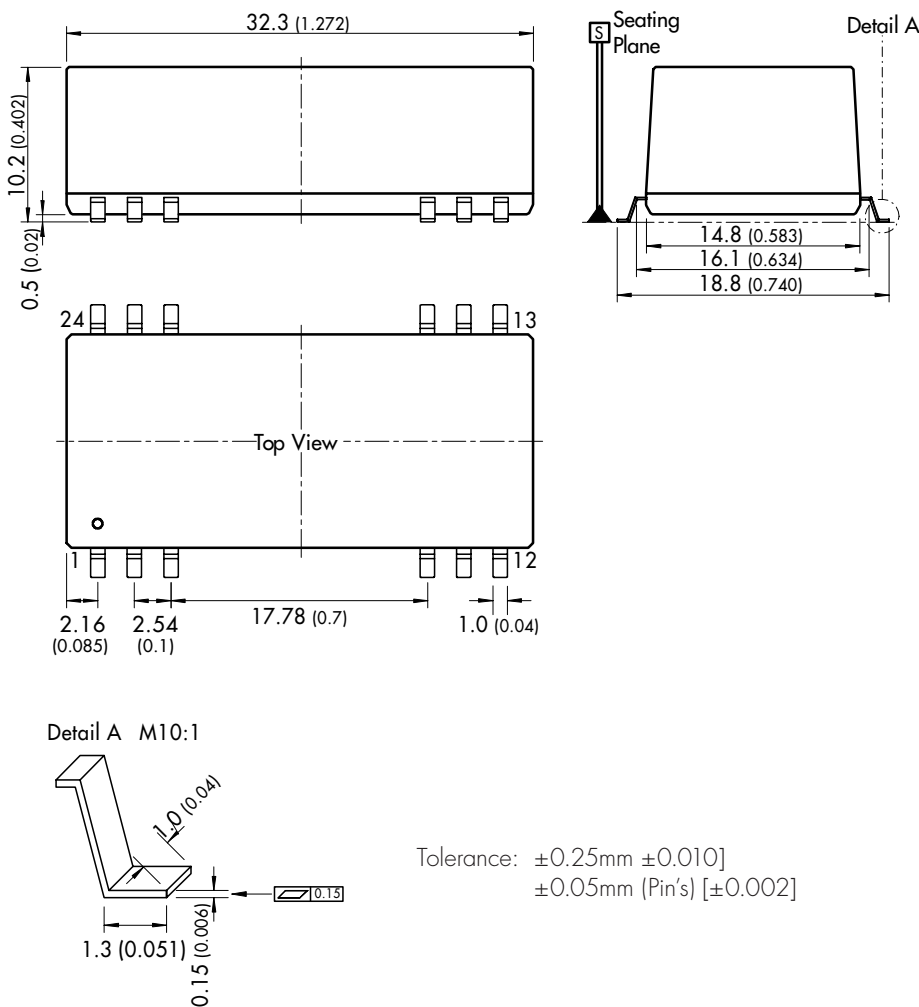
Models

| Ordercode | Input voltage range | Output voltage | Output current max. | Efficiency typ. |
|------------|--|----------------|---------------------|-----------------|
| TES 3-1210 | 9 – 18 VDC (12 VDC nominal) | 3.3 VDC | 700 mA | 75 % |
| TES 3-1211 | | 5 VDC | 600 mA | 79 % |
| TES 3-1212 | | 12 VDC | 250 mA | 82 % |
| TES 3-1222 | | ± 12 VDC | ± 125 mA | 81 % |
| TES 3-1223 | | ± 15 VDC | ± 100 mA | 81 % |
| TES 3-2410 | 18 – 36 VDC (12 VDC nominal) | 3.3 VDC | 700 mA | 76 % |
| TES 3-2411 | | 5 VDC | 600 mA | 80 % |
| TES 3-2412 | | 12 VDC | 250 mA | 83 % |
| TES 3-2422 | | ± 12 VDC | ± 125 mA | 82 % |
| TES 3-2423 | | ± 15 VDC | ± 100 mA | 82 % |
| TES 3-4810 | 36 – 75 VDC (12 VDC nominal) | 3.3 VDC | 700 mA | 76 % |
| TES 3-4811 | | 5 VDC | 600 mA | 80 % |
| TES 3-4812 | | 12 VDC | 250 mA | 83 % |
| TES 3-4822 | | ± 12 VDC | ± 125 mA | 82 % |
| TES 3-4823 | | ± 15 VDC | ± 100 mA | 82 % |

Physical Specifications

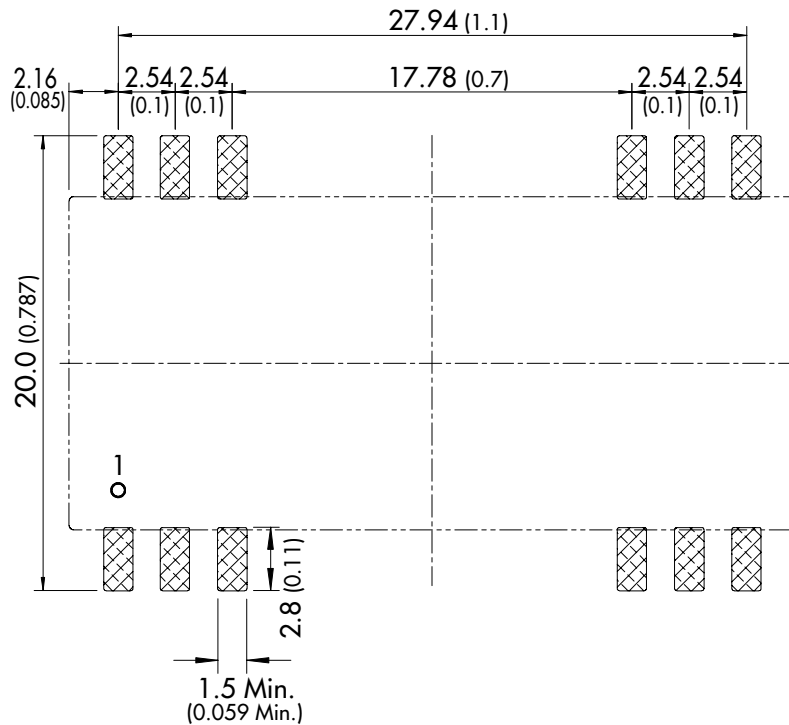
| | |
|--------------------------|---|
| Casing material | non conductive black plastic (UL 94V-0-rated) |
| Package weight | 6 g (0.21 oz) |
| Reflow soldering profile | peak temp. 245°C (10 sec max.) 217°C for 90 sec. max. convection reflow solder process is recommended |

Outline Dimensions mm (inches)



| Pin-Out | | |
|---------|------------|------------|
| Pin | Single | Dual |
| 1 | -Vin (GND) | -Vin (GND) |
| 2 | -Vin (GND) | -Vin (GND) |
| 3 | NC | NC |
| 10 | NC | Common |
| 11 | NC | NC |
| 12 | NC | -V Output |
| 13 | +V Output | + V Output |
| 14 | NC | NC |
| 15 | -V Output | Common |
| 22 | NC | NC |
| 23 | +Vin (Vcc) | +Vin (Vcc) |
| 24 | +Vin (Vcc) | +Vin (Vcc) |

Solder Pad Dimensions mm (inches)



Specifications can be changed any time without notice.