

## Austin MicroLynx™ SMT Non-isolated Power Modules: 3.0 – 5.5 Vdc Input; 0.75Vdc to 3.63 Vdc Output; 5A Output Current



### Features

- Delivers 5A output current
- High efficiency: 94.0% at 3.3V full load ( $V_{in}=5.0V$ )
- Small size and low profile:  
20.3 mm x 11.4 mm x 5.97 mm  
(0.80 in x 0.45 in x 0.235 in)
- Cost-efficient open frame design
- High reliability:  
Calculated MTBF > TBD hours at 25°C
- Remote On/Off
- Programmable output voltage via external resistor  
from 0.75Vdc to 3.63Vdc
- Tightly regulated output voltage,  $\pm 1\%$  typical
- Load Regulation  $\pm 0.2\%$
- Line Regulation  $\pm 0.1\%$
- Constant switching frequency
- Auto-reset overcurrent protection (non-latching)
- Surface mount package
- UL\* 60950 Recognized, CSA† C22.2 No. 60950-00  
Certified, and VDE‡ 0805 (IEC60950, 3<sup>rd</sup> edition)  
Licensed

### Applications

- Intermediate Bus architecture
- Workstations, Servers, Desktop computers
- Distributed power architecture
- Telecommunications equipment
- Latest generation Ics (DSP, FPGA, ASIC) and  
microprocessor based applications
- LANs/WANs
- Data processing equipment

### Description

Austin MicroLynx™ SMT (surface mount technology) power modules are non-isolated dc-dc converters that can deliver 5A of output current with full load efficiency of 94.0% at 3.3V output. These modules provide precisely regulated output voltage programmable via external resistor from 0.75Vdc to 3.63Vdc. The open frame construction and small footprint enable designers to develop cost- and space-efficient solutions. Features include remote On/Off and overcurrent protection.

\* UL is a registered trademark of Underwriters Laboratories, Inc.

† CSA is a registered trademark of Canadian Standards Association.

‡ VDE is a trademark of Verband Deutscher Elektrotechniker e.V.  
should be followed. (The CE mark is placed on selected products.)



## Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only. Functional operation of the device is not implied at these or any other conditions in excess of those given in the operations sections of the data sheet. Exposure to absolute maximum ratings for extended periods can adversely affect the device reliability.

| Parameter                     | Device | Symbol    | Min | Max | Unit |
|-------------------------------|--------|-----------|-----|-----|------|
| Input Voltage<br>Continuous   | All    | $V_I$     | 0   | 6.5 | Vdc  |
| Operating Ambient Temperature | All    | $T_A$     | -40 | 85  | °C   |
| Storage Temperature           | All    | $T_{stg}$ | -55 | 125 | °C   |

## Electrical Specifications

Unless otherwise indicated, specifications apply over all operating input voltage, resistive load, and temperature conditions.

**Table 1. Input Specifications**

| Parameter   | Device                  | Symbol      | Min | Typ | Max | Unit              |
|---|-------------------------|-------------|-----|-----|-----|-------------------|
| Operating Input Voltage   | $V_{out} \leq 2.75V$ dc | $V_I$       | 3.0 | 3.3 | 5.5 | Vdc               |
|   | $V_{out} > 2.75V$ dc    | $V_I$       | 4.5 | 5.0 | 5.5 | Vdc               |
| Maximum Input Current<br>( $V_I=0V$ to $V_{I,max}$ ; $I_O=I_{O,max}$ )  |                         | $I_{I,max}$ |     |     | 6   | Adc               |
| Inrush Transient  |                         | $I^2t$      | —   | —   | 0.1 | A <sup>2</sup> s  |
| Input Reflected Ripple Current<br>(5Hz to 20 MHz,<br>12uH source impedance<br>See Test configuration section) |                         | $I_I$       | —   | 30  |     | mA <sub>p-p</sub> |
| Input Ripple Rejection (120Hz)  |                         | —           | —   | 40  | —   | dB                |

## Fusing Considerations

**CAUTION: This power module is not internally fused. An input line fuse must always be used.**

This power module can be used in a wide variety of applications, ranging from simple stand-alone operation to an integrated part of sophisticated power architecture. To preserve maximum flexibility, internal fusing is not included however, to achieve maximum safety and system protection, always use an input line fuse. The safety agencies require a time-delay fuse with a maximum rating of 15A (see Safety Considerations section). Based on the information provided in this data sheet on inrush energy and maximum dc input current, the same type of fuse with a lower rating can be used. Refer to the fuse manufacturer's data sheet for further information.



## Electrical Specifications (continued)

Table 2. Output Specifications

| Parameter  | Output   | Symbol   | Min                                  | Typ  | Max                                  | Unit  |
|--|--|--|--------------------------------------|--|--------------------------------------|---|
| Output Voltage Set-point<br>( $V_I = 5V$ , $I_O = I_{O, \min}$ to $I_{O, \max}$ , $T_A = 25^\circ C$ )   |  | $V_{O, \text{set}}$  | $V_{O, \text{set}} - 1\%$            | $V_{O, \text{set}}$                          | $V_{O, \text{set}} + 1\%$            | Vdc<br>Vdc  |
| Output Voltage<br>(Over all operating input voltage, resistive load, and temperature conditions at Steady state until end of life)   |  | $V_{O, \text{set}}$  | $V_{O, \text{set}} - 3\%$            | —  | $V_{O, \text{set}} + 3\%$            | Vdc   |
| Output Regulation<br>Line ( $V_I = V_{I, \min}$ to $V_{I, \max}$ )<br>Load ( $I_O = I_{O, \min}$ to $I_{O, \max}$ )<br>Temperature ( $T_A = T_{A, \min}$ to $T_{A, \max}$ )  |  |  | —<br>—<br>—                          | 0.01<br>0.1<br>0.5                           | 0.1<br>0.2<br>1                      | % , $V_{O, \text{set}}$<br>% , $V_{O, \text{set}}$<br>% , $V_{O, \text{set}}$ |
| Output Ripple and Noise<br>Measured across 10 $\mu$ F Tantalum, 1 $\mu$ F Ceramic, $V_I = V_{I, \text{nom}}$ , $T_A = 25^\circ C$ , $I_O = I_{O, \max}$<br>See Test Configuration section<br><br>RMS (5Hz to 20 MHz bandwidth)<br>Peak-to-peak (5Hz to 20MHz bandwidth)  |  |  | —<br>—                               | —<br>—                                       | 35<br>50                             | mV <sub>rms</sub><br>mV <sub>p-p</sub>  |
| External Load Capacitance  |  | $C_{O, \max}$  | 0                                    | —  | 3000                                 | $\mu$ F   |
| Output Current   |  | $I_O$  | 0                                    | —  | 5                                    | Adc   |
| Output Current-Limit Inception<br>( $V_O = 90\%$ of $V_{O, \text{set}}$ )  |  | $I_{O, \text{lim}}$  | 5.25                                 | —  | 6.25                                 | Adc   |
| Output Short-circuit Current (Average)<br>$V_O = 0.25V$  |  | $I_{O, \text{sc}}$   | —                                    | 3  | —                                    | Adc   |
| Efficiency ( $V_I = 5V$ ; $I_O = I_{O, \max}$ )<br>$T_A = 25^\circ C$  | $V_O = 0.9$ Vdc<br>$V_O = 1.0$ Vdc<br>$V_O = 1.2$ Vdc<br>$V_O = 1.5$ Vdc<br>$V_O = 1.8$ Vdc<br>$V_O = 2.0$ Vdc<br>$V_O = 2.5$ Vdc<br>$V_O = 3.3$ Vdc | $\eta$<br>$\eta$<br>$\eta$<br>$\eta$<br>$\eta$<br>$\eta$<br>$\eta$<br>$\eta$ | —<br>—<br>—<br>—<br>—<br>—<br>—<br>— | 80<br>84<br>85<br>87<br>89<br>89<br>91<br>94 | —<br>—<br>—<br>—<br>—<br>—<br>—<br>— | %<br>%<br>%<br>%<br>%<br>%<br>%<br>%  |
| Switching Frequency  |  | $f_{\text{sw}}$  | —                                    | 300  | —                                    | kHz   |
| Dynamic Response<br>( $di/dt = 2.5A/\mu s$ , $V_I = 5V$ , $T_A = 25^\circ C$ )<br>Load change from $I_O = 100\%$ to 50% of $I_{O, \max}$ ,<br>Peak Deviation<br>Settling Time ( $V_O < 10\%$ of peak deviation)<br>Load change from $I_O = 100\%$ to 50% of $I_{O, \max}$ ,<br>Peak Deviation<br>Settling Time ( $V_O < 10\%$ of peak deviation) |  | —<br><br>—<br><br>—  | —<br><br>—<br><br>—                  | 200<br>0.2<br><br>200<br>0.2                 | —<br><br>—<br><br>—                  | mV<br>msec<br><br>mV<br>msec  |

## Electrical Specifications (continued)

**Table 3. General Specifications**

| Parameter  | Device | Min | Typ | Max | Unit    |
|--|--------|-----|-----|-----|---------|
| Calculated MTBF ( $I_O = I_{O, max}$ , $T_A = 25^\circ\text{C}$ )<br>Tyco RIN (Reliability Information Notebook)<br>Method |        | TBD |     |     | Hours   |
| Weight   |        | —   | TBD | TBD | g (oz.) |

## Feature Specifications

Unless otherwise indicated, specifications apply over all operating input voltage, resistive load, and temperature conditions. See Feature Descriptions section of this data sheet for additional information.

| Parameter  | Device     | Symbol                       | Min          | Typ          | Max          | Unit               |
|--|------------|------------------------------|--------------|--------------|--------------|--------------------|
| Remote On/Off Signal interface<br>( $V_I = V_{I, min}$ to $V_{I, max}$ ; Open collector pnp or equivalent<br>Compatible, Von/off signal referenced to GND.<br>See Figure 21 and feature description section)<br>Logic Low (On/Off Voltage pin open - Module ON)<br>$I_{on/Off} = 0.0 \mu\text{A}$<br>$V_{on/Off} = 0.3$<br>Logic High ( $V_{on/Off} > 2.5\text{V}$ – Module Off)<br>$I_{on/Off} = 1 \text{ mA}$<br>$V_{on/off} = 0.3\text{V}$  |            |                              |              |              |              |                    |
|  | All        | $V_{on/Off}$<br>$I_{on/Off}$ | —<br>—       | —<br>—       | 0.3<br>10    | V<br>$\mu\text{A}$ |
|  | All        | $V_{on/Off}$<br>$I_{on/off}$ | —<br>—       | —<br>—       | 6.5<br>1     | V<br>mA            |
| Turn-On Delay and Rise Times<br>( $I_O = 80\%$ of $I_{O, max}$ , $T_A = 25^\circ\text{C}$ )<br>Case 1: On/Off input is set to Logic Low (Module ON)<br>and then input power is applied (delay from instant at<br>which $V_I = V_{I, min}$ until $V_O = 10\%$ of $V_O$ , set)<br>Case 2: Input power is applied for at least one second<br>and then the On/Off input is set to logic Low (delay from<br>instant at which $V_{on/Off} = 0.3\text{V}$ until $V_O = 10\%$ of $V_O$ ,<br>set)<br>Output voltage Rise time (time for $V_O$ to rise from 10% of<br>$V_O$ , set to 90% of $V_O$ , set) | All        | $T_{delay}$                  | —            | TBD          | —            | msec               |
|  | All        | $T_{delay}$                  | —            | TBD          | —            | msec               |
|  | All        | $T_{rise}$                   | —            | TBD          | —            | msec               |
| Output voltage overshoot<br>( $I_O = 80\%$ of $I_{O, max}$ , $V_I = 12\text{Vdc}$ , $T_A = 25^\circ\text{C}$ )   | All        |                              | —            | —            | TBD          | mV                 |
| Output voltage adjustment<br>(See Feature description section)<br>Output voltage Set-point adjustment range (trim)   |            |                              | 0.7          | —            | 3.63         | Vdc                |
| Input Undervoltage Lockout<br>Turn-on Threshold<br>Turn-off Threshold  | All<br>All |                              | 1.95<br>1.87 | 2.05<br>1.91 | 2.15<br>1.95 | V<br>V             |



### Characteristic Curves

The following figures provide typical characteristics curves for Austin MicroLynx at room temperature ( $T_A = 25^\circ\text{C}$ )

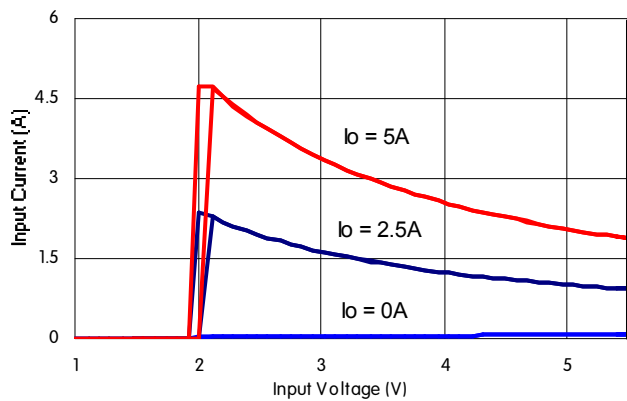


Figure 1. Typical input voltage and current characteristics  
AXH005A0X-SR ( $V_o = 1.8\text{ V}$ )

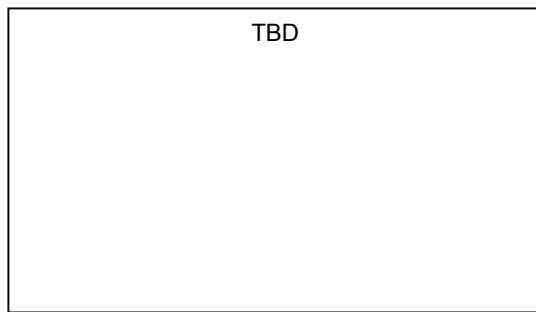


Figure 2. Typical Output voltage and Output current characteristics

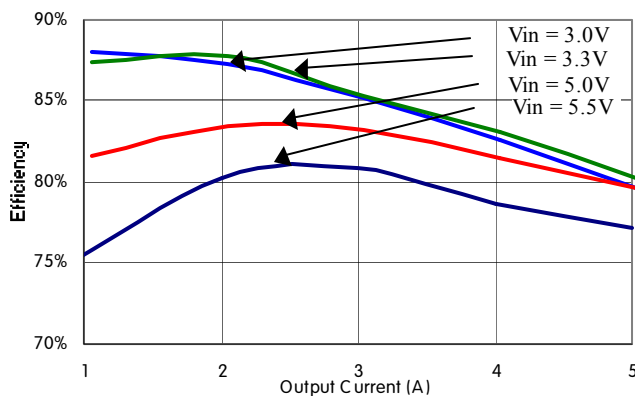


Figure 3. Converter efficiency vs. output current  
AXH005A0X-SR ( $V_o = 0.75\text{ V}$ )

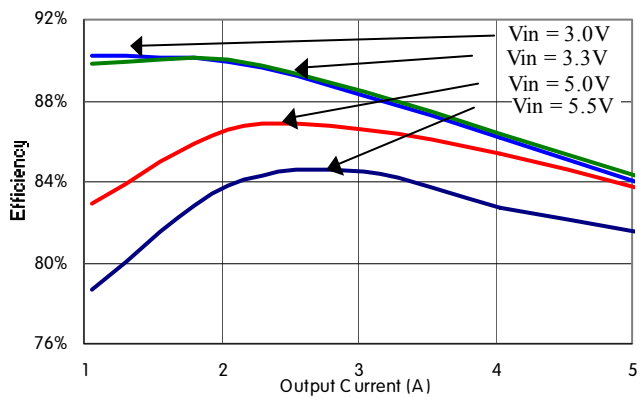


Figure 4. Converter efficiency vs. output current  
AXH005A0X-SR ( $V_o = 1.0\text{ V}$ )

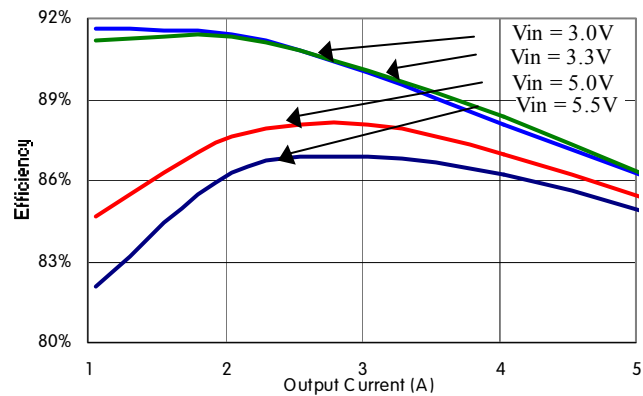


Figure 5. Converter efficiency vs. output current  
AXH005A0X-SR ( $V_o = 1.2\text{ V}$ )

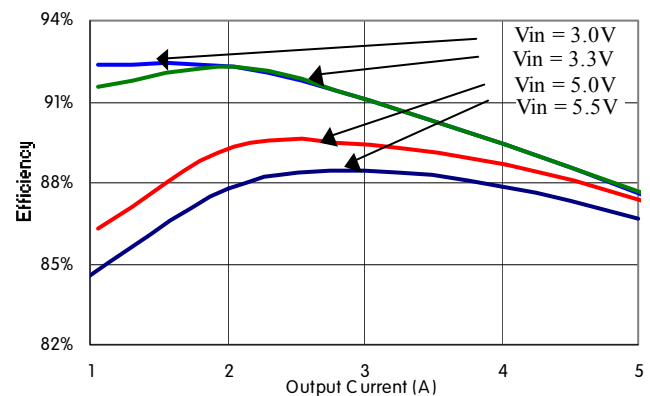


Figure 6. Converter efficiency vs. output current  
AXH005A0X-SR ( $V_o = 1.5\text{ V}$ )

### Characteristic Curves (continued)

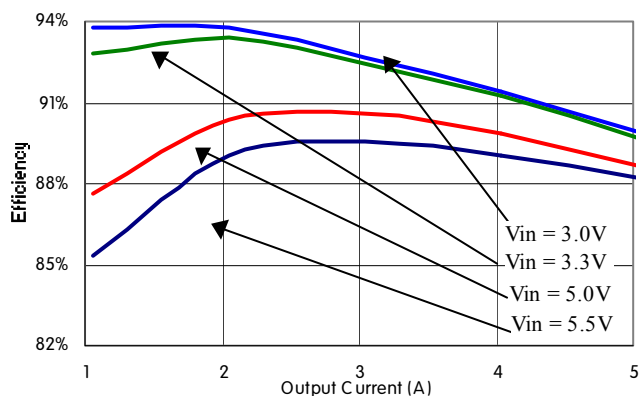


Figure 7. Converter efficiency vs. output current  
AXH005A0X-SR ( $V_o = 1.8V$ )

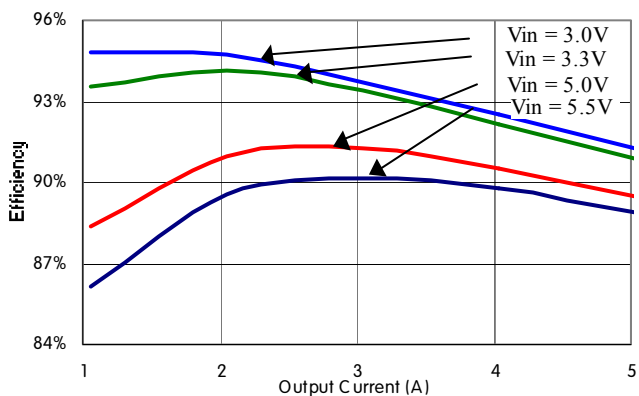


Figure 8. Converter efficiency vs. output current  
AXH005A0X-SR ( $V_o = 2.0V$ )

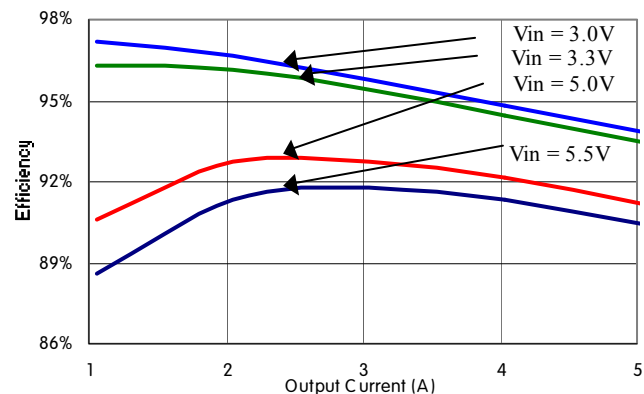


Figure 9. Converter efficiency vs. output current  
AXH005A0X-SR ( $V_o = 2.5V$ )

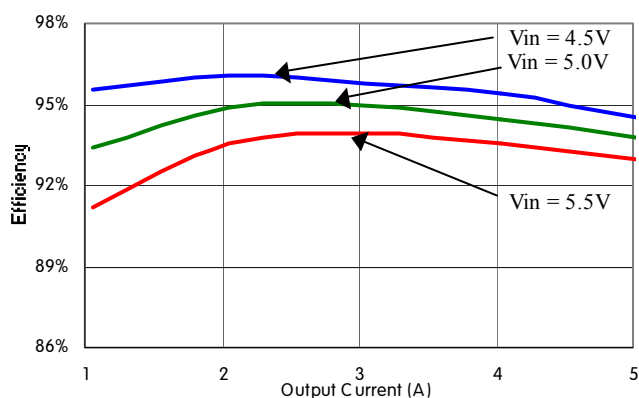


Figure 10. Converter efficiency vs. output current  
AXH005A0X-SR ( $V_o = 3.3V$ )

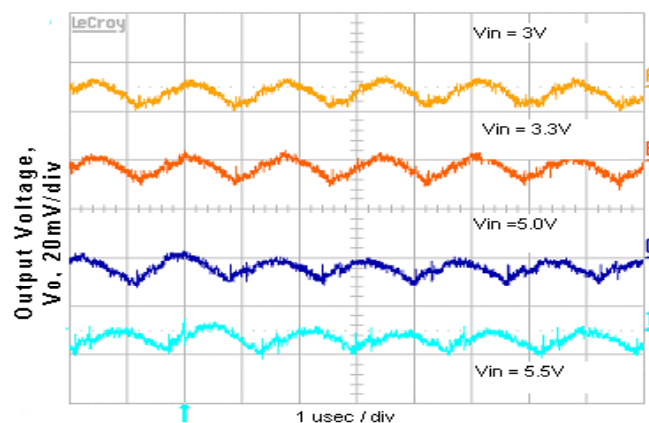


Figure 11. Typical Output Ripple Voltage AXH005A0X-SR  
( $V_o = 0.75 V$ ,  $I_o = 5A$ )

Figure 12. Typical Start-Up Voltage Waveform  
AXH005A0X-SR  
( $V_o = 3.3V$ ,  $V_{in} = 5V$ ,  $I_o = 5A$ )



Characteristics Curves (continued)

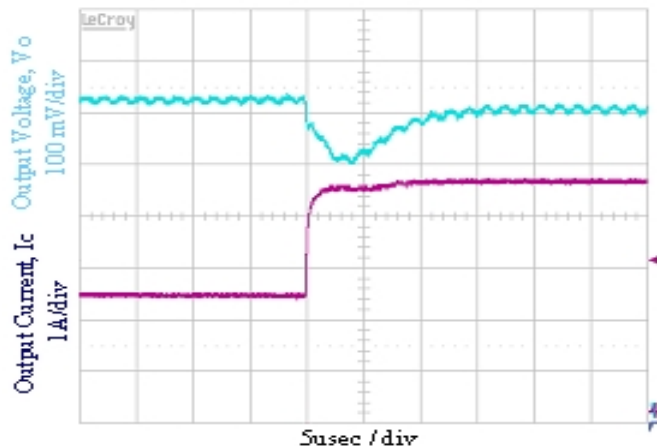


Figure 13. Typical Transient Response to Step load change at 2.5 A/usec from 50% to 100% of  $I_{o,max}$   
AXH005A0X-SR ( $V_o = 1.8V$ )

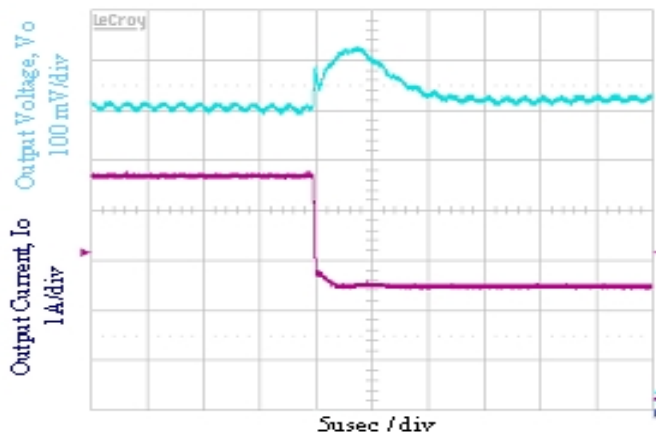


Figure 14. Typical Transient Response to Step load change at 2.5 A/usec from 100% to 50% of  $I_{o,max}$   
AXH005A0X-SR ( $V_o = 1.8V$ )

## Test Configurations

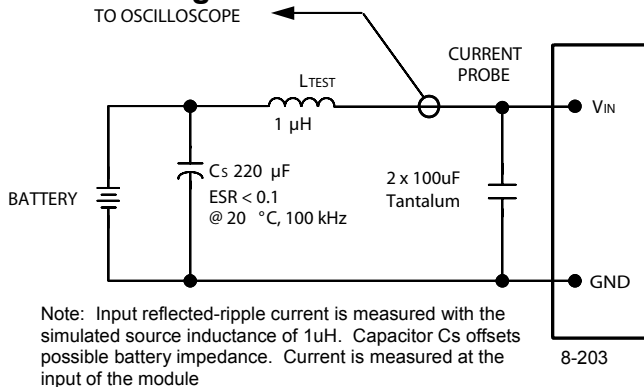


Figure 15. Input Reflected-Ripple Test Set-up

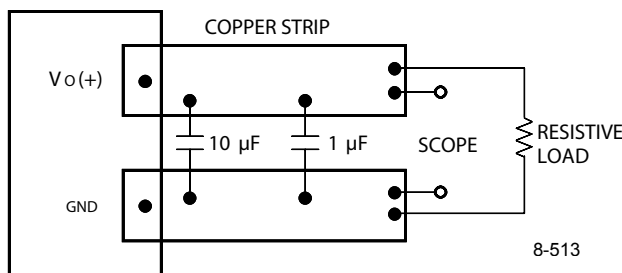
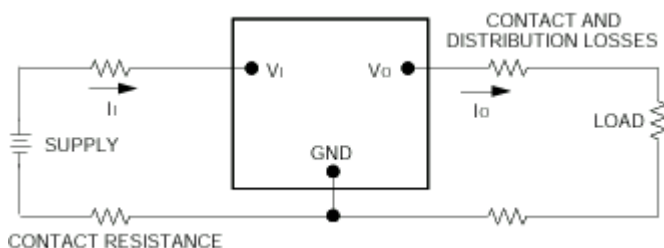


Figure 16. Peak-to-Peak Output noise and start-up Transient measurement Test Set-up



$$\eta = \left( \frac{V_{ox} I_o}{V_{ix} I_i} \right) \times 100 \quad \%$$

Figure 17. Output Voltage and Efficiency Measurement Test Set-up

## Design Considerations

### Input Source Impedance

To maintain low-noise and ripple at the input voltage, it is critical to use low ESR capacitors at the input to the module. Figure 18 shows the input ripple voltage (mV p-p) for various output voltages using a 150µF low ESR polymer capacitor (Panasonic p/n: EEFUE0J151R, Sanyo p/n: 6TPE150M) in parallel with 47µF ceramic capacitor (Panasonic p/n: ECJ-5YB0J476M, Taiyo Yuden p/n: CEJMK432BJ476MMT). Figure 19 depicts much lower input voltage ripple when input capacitance is increased to 450µF (3x150µF) polymer capacitors in parallel with 94µF (xx47µF) ceramic capacitor.

The input capacitance should be able to handle an AC ripple current of at least:

$$I_{rms} = I_{out} \times \sqrt{\frac{V_{out}}{V_{in}} \times \left[ 1 - \frac{V_{out}}{V_{in}} \right]} \quad \text{Arms}$$

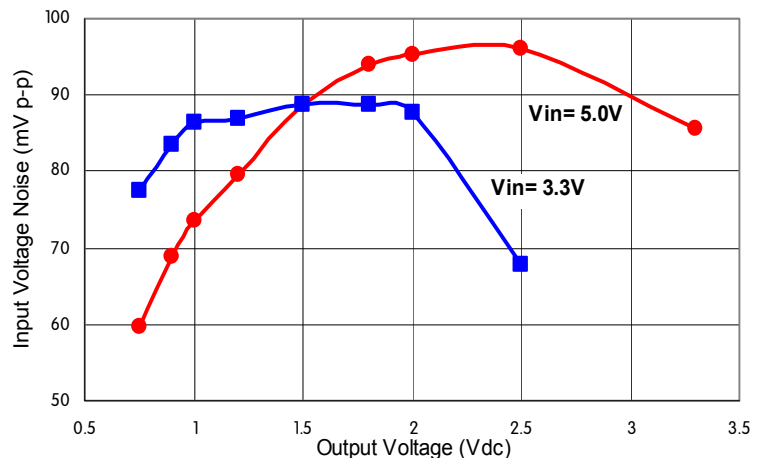


Figure 18. Input Voltage Ripple for various output Voltages (Io=5A) CIN = 150uF polymer//47uF Ceramic

Figure 19. Input Voltage Ripple for various output Voltages (Io=5A) CIN = 3x150uF polymer// 2 x 47uF Ceramic



## Design Considerations (continued)

### Safety Considerations

For safety agency approval the power module must be installed in compliance with the spacing and separation requirements of the end-use safety agency standards, i.e., UL 60950, CSA C22.2 No. 60950-00, EN60950 (VDE 0850) 0805 (IEC60950, 3<sup>rd</sup> edition) Licensed.

For the converter output to be considered meeting the requirements of safety extra-low voltage (SELV), the input must meet SELV requirements. The power module has extra-low voltage (ELV) outputs when all inputs are ELV.

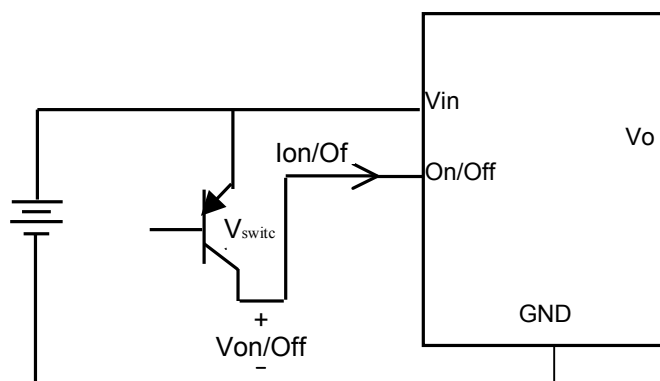
The input to these units is to be provided with a maximum of 15 A time-delay fuse in the ungrounded lead.

## Feature Descriptions

### Remote On/Off

The Austin MicroLynx™ SMT power modules feature an On/Off pin for remote On/Off operation. If not using the remote On/Off pin, leave the pin open (module will be on). The On/Off pin signal (Von/Off) is referenced to ground. To switch module on and off using remote On/Off, connect an open collector pnp transistor between the On/Off pin and the Vi pin (See Figure 20).

During a logic-low when the transistor is in the Off state, the power module is ON and the maximum Von/off of the module is 0.3 V. The maximum leakage current of the transistor when Von/off = 0.3V and  $V_i = 5.5V$  is 10uA. During a logic-high when the transistor is in the active state, the power module is OFF. During this state VOn/Off = 2.5V to 5.5V and the maximum IOn/Off = 1mA.



1-0883

Figure 21. Remote On/Off Implementation

## Feature Descriptions (continued)

### Output Voltage Programming

The output voltage of the Austin MicroLynx™ SMT can be programmed to any voltage from 0.75 Vdc to 3.3 Vdc by connecting a single resistor (shown as  $R_{trim}$  in Figure 22) between the TRIM and GND pins of the module. Without an external resistor between TRIM pin and the ground, the output voltage of the module is 0.75 Vdc. To calculate the value of the resistor  $R_{trim}$  for a particular output voltage  $V_o$ , use the following equation:

$$R_{trim} = \left[ \frac{21070}{V_o - 0.75} - 5110 \right] k\Omega$$

For example, to program the output voltage of the Austin MicroLynx™ module to 1.8 Vdc,  $R_{trim}$  is calculated as follows:

$$R_{trim} = \left[ \frac{21070}{1.8 - 0.75} - 5110 \right]$$

$$R_{trim} = 14.957 k\Omega$$

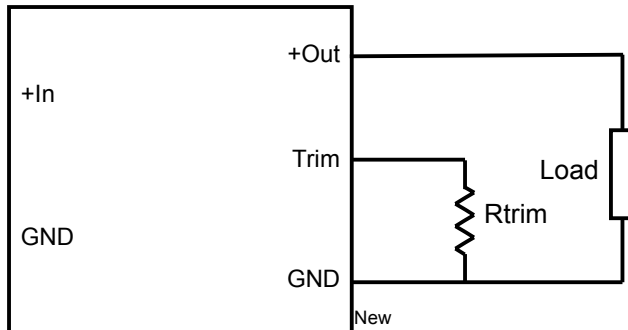


Figure 22. Circuit configuration for programming output voltage using an external resistor

The Austin MicroLynx™ can also be programmed by applying a voltage between TRIM and GND pins (Figure 23). The following equation can be used to determine the value of  $V_{trim}$  needed to obtain a desired output voltage  $V_o$ :

$$V_{trim} = (0.7 - 0.1698 \times \{V_o - 0.75\})$$

For example, to program the output voltage of a MicroLynx™ module to 3.3 Vdc,  $V_{trim}$  is calculated as follows:

$$V_{trim} = (0.7 - 0.1698 \times \{3.3 - 0.75\})$$

$$V_{trim} = 0.2670V$$

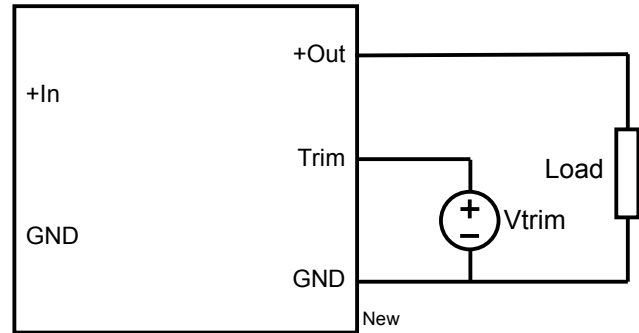


Figure 23. Circuit Configuration for programming Output voltage using external voltage source

Table 4 provides  $R_{trim}$  values required for most common output voltages. Table 5 provides values of external voltage source,  $V_{trim}$  for various output voltages.

Table 4

| $V_{o,set}$<br>(V) | $R_{trim}$<br>K $\Omega$ |
|--------------------|--------------------------|
| 0.75               | Open                     |
| 0.9                | 135.36                   |
| 1.0                | 79.17                    |
| 1.2                | 41.71                    |
| 1.5                | 22.98                    |
| 1.8                | 14.96                    |
| 2.0                | 11.75                    |
| 2.5                | 6.93                     |
| 3.3                | 3.15                     |

Table 5

| $V_{o,set}$<br>(V) | $V_{trim}$<br>(V) |
|--------------------|-------------------|
| 0.75               | Open              |
| 0.9                | 0.6745            |
| 1.0                | 0.6575            |
| 1.2                | 0.6236            |
| 1.5                | 0.5726            |
| 1.8                | 0.5047            |
| 2.0                | 0.4878            |
| 2.5                | 0.403             |
| 3.3                | 0.2670            |



## Feature Descriptions (Continued)

### Overcurrent Protection

To provide protection in a fault condition, the unit is equipped with internal non-latching internal overcurrent protection. The unit operates normally once the fault condition is removed.

### Input Undervoltage Lockout

At input voltages below the input undervoltage lockout limit, the module operation is disabled. The module will begin to operate at an input voltage above the undervoltage lockout turn-on threshold.

## Thermal Considerations

The power module operates in a variety of thermal environments; however, sufficient cooling should be provided to help ensure reliable operation of the unit. Heat is removed by conduction, convection and radiation to the surrounding environment.

The thermal data presented is based on measurement taken in a wind tunnel. The test set-up is shown in Figure 25 was used to collect data for Figures 26 and 27. Note that the airflow is parallel to the short axis of the module as shown in Figure 24. The derating data applies to airflow along either direction of the module's short axis.

**Figure 24. Temperature measurement location**

The temperature at Pin Y of X1 or X2 should not exceed  $zzz^{\circ}\text{C}$ . The output power of the module should not exceed the rated power of the module ( $V_{o,\text{set}} \times I_{o,\text{max}}$ ).

### Convection Requirements for Cooling

To predict the approximate cooling needed for the module, refer to power derating curve in Figures 26 and 27.

The derating curve is approximation of the ambient temperatures and airflows required to keep the power module temperature below rating. Once the module is assembled in the actual system, the module's temperature should be checked as shown in Figure 25 to ensure it does not exceed  $zzz^{\circ}\text{C}$ . Proper cooling can be verified by measuring the power module's temperature at x1-pin y and x2-piny as shown in Figure 24.

## Thermal Considerations (continued)

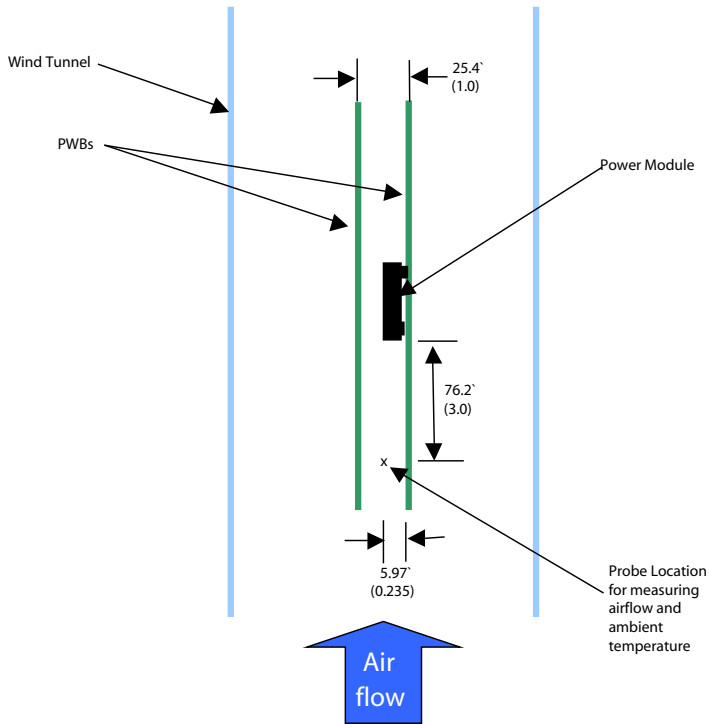


Figure 25. Thermal Test set-up

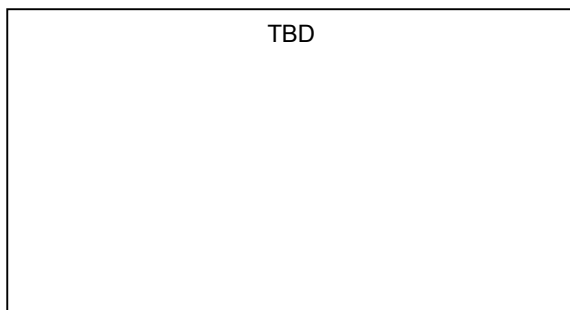


Figure 26. Typical Power Derating Curve vs. Output Current AXH005A0X-SR ( $V_o = 2.5V$ ,  $V_{in} = 3.3V$ )

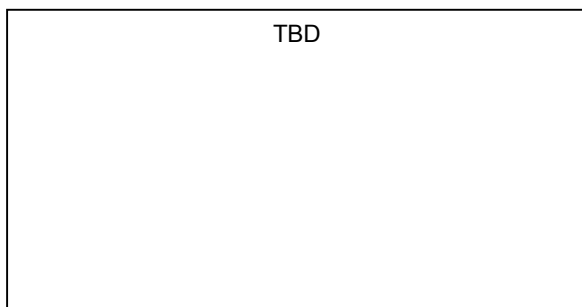


Figure 27. Typical Power Derating Curve vs. Output Current for AXH005A0X-SR ( $V_o = 3.3V$ ,  $V_{in} = 5V$ )

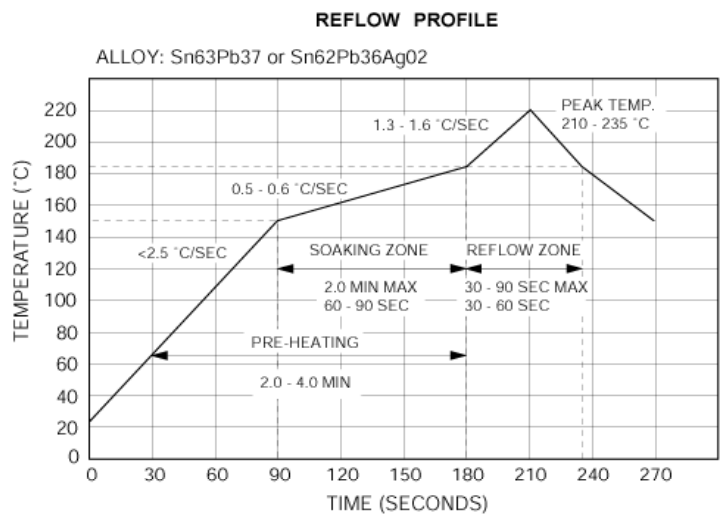
## Layout Considerations

Copper paths should not be routed directly underneath the module.

## Reflow Profile

An example of a reflow profile (using 63/37 solder) for Austin MicroLynx™ SMT power module is :

- Pre-heating zone: room temperature to 183 °C (2.0 to 4.0 minutes maximum)
- Initial ramp rate: < 2.5 °C per second
- Soaking Zone: 155 °C to 183 °C – 60 to 90 seconds typical (2.0 minutes maximum)
- Reflow zone ramp rate: 1.3 °C to 1.6 °C per second
- Reflow zone: 210 °C to 235 °C peak temperature – 30 to 60 seconds (90 seconds maximum)



### **Pick and Place Location**

Although the module weight is minimized by using open-frame construction, the modules have relatively large mass compared to conventional surface-mount-technology components. To optimize the pick-and-place process, automated vacuum equipment variables such as nozzle size, tip style, vacuum pressure, and placement speed should be considered. Austin MicroLynx™ SMT modules have a flat surface which serves as a pick-and-place location for automated vacuum equipment. The module's pick-and-place location is identified by the target symbols on the top label as shown in Figure 28.

**Figure 28. Pick and Place Location**

### **Surface-Mount Tape & Reel**

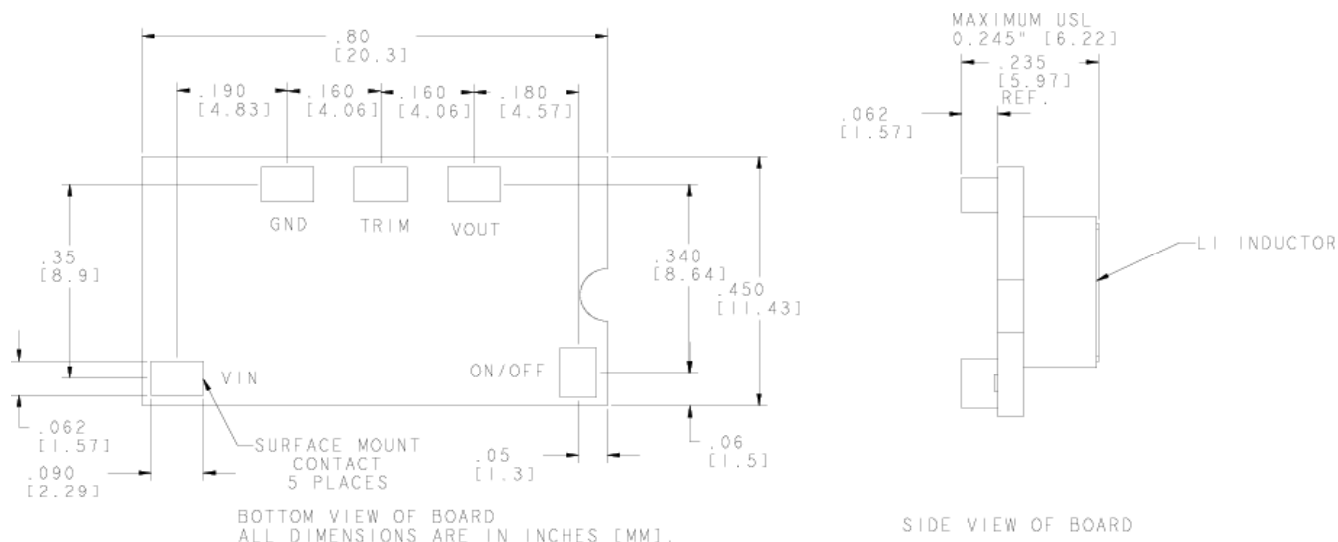
**Figure 29. Tape Dimensions**



## Mechanical Outline Diagram

Dimensions are in millimeters and (inches).

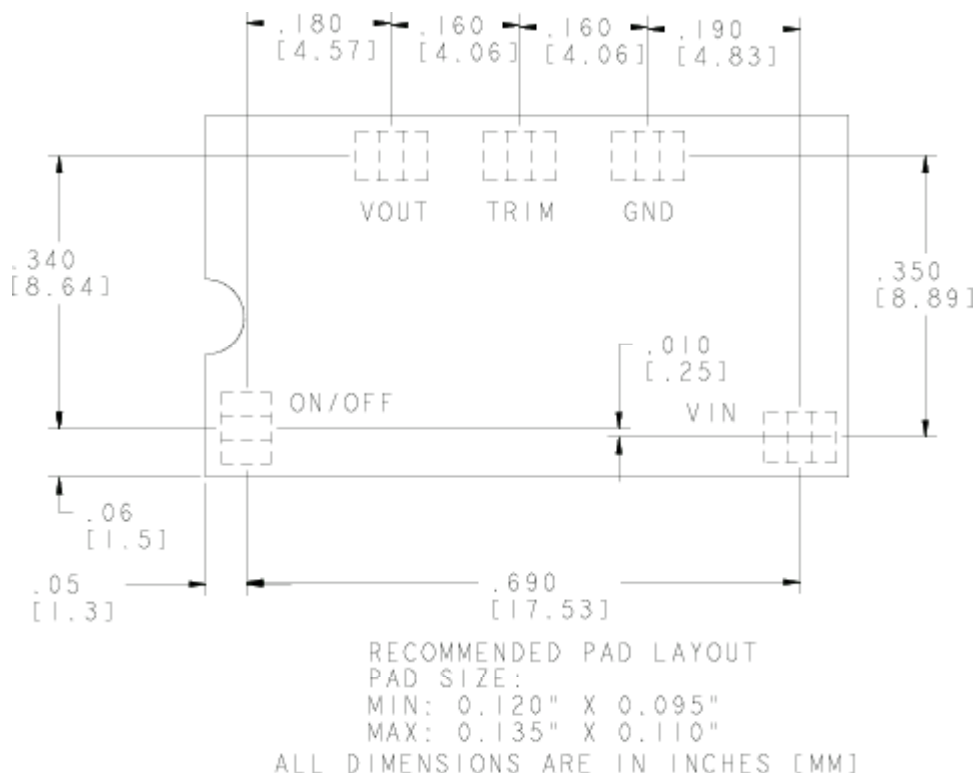
Tolerances:  $x.x \pm 0.5$  mm (0.02 in.),  $x.xx \pm 0.25$  mm (0.010 in.), unless otherwise noted.



## Recommended Pad Layout

Dimensions are in millimeters and (inches).

Tolerances:  $x.x \pm 0.5$  mm (0.02 in.),  $x.xx \pm 0.25$  mm (0.010 in.), unless otherwise noted.



## Ordering Information

Please contact your Tyco Electronics' Account Manager or Field Application Engineer for pricing and availability.

**Table 6. Device Codes**

| Device Code  | Input Voltage | Output Voltage | Output Current | Efficiency 3.3V @ 5A | Connector Type | Packaging   | Comcode   |
|--------------|---------------|----------------|----------------|----------------------|----------------|-------------|-----------|
| AXH005A0X-SR | 3.0 – 5.5 Vdc | 0.75 – 3.63 V  | 5A             | 94.0%                | SMT            | Tape & Reel | 108979667 |



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