

Generation description

MXPP8-30-1103 is a push-pull transformer which matching push-pull controller MX6501T from Maxin Micro-electronics. Suitable for 12V to 12V, 5V to 5V and 3.3V to 3.3V applications. It can be widely used in photovoltaic, vehicles, BMS, communication and other application fields.

General information

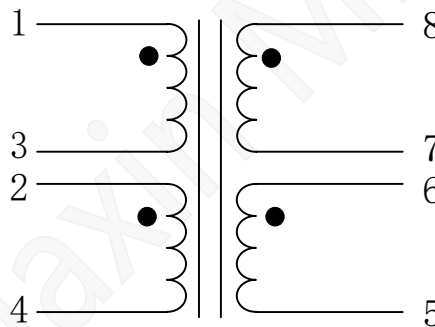
| | | |
|--------------------------|-----------|---------------------------|
| Operating temperature | -40~125°C | Temperature rise included |
| Storage conditions | -40~80°C | Original package |
| Storage conditions | -40~80°C | Single part |
| Moisture sensitive level | MSL3 | |

Electronical properties

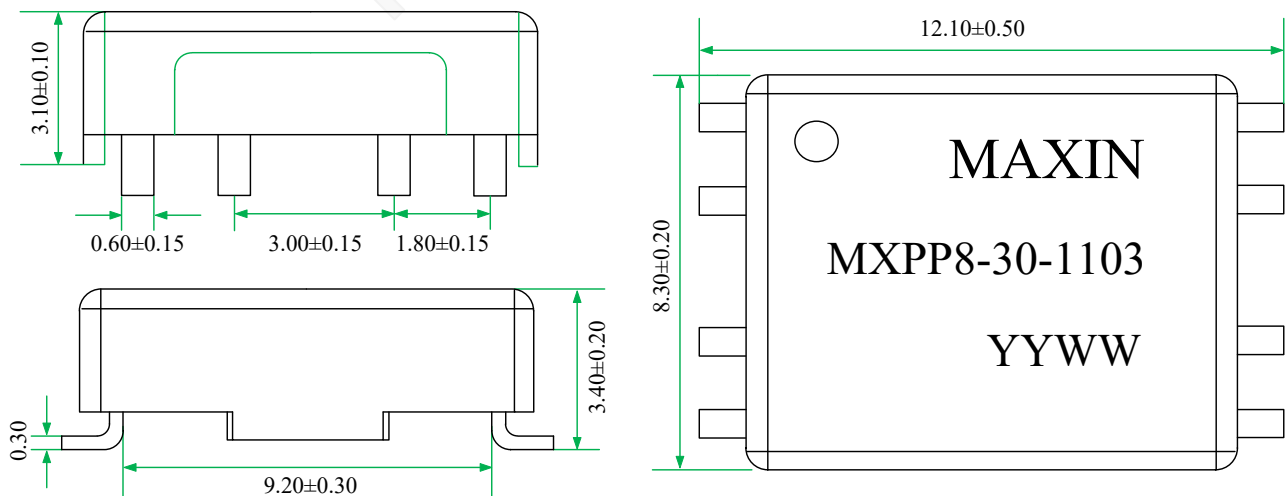
| Properties | Test conditions | Value | unit |
|----------------------|-------------------------------|------------|------|
| Inductance | 1-4 10kHz 0.1V (2-3 short) | 2000 Min | μH |
| Leakage inductance | 1-4 10kHz 0.1V (others short) | 2 Max | μH |
| Turns ratio | 1-4 : 5-8 (2-3 6-7short) | 1:1.03 Typ | |
| Coupling capacitance | 1-8 (100kHz 0.01V) | 21 Typ | pF |
| Voltage Time | Bipolar waveform | 30 Min | Vμs |
| DC resistance | 1-3 | 400 Max | mΩ |
| | 7-8 | 450 Max | mΩ |
| Insulation voltage | 1-2-3-4 : 5-6-7-8 DC/1s | 3000 | V |



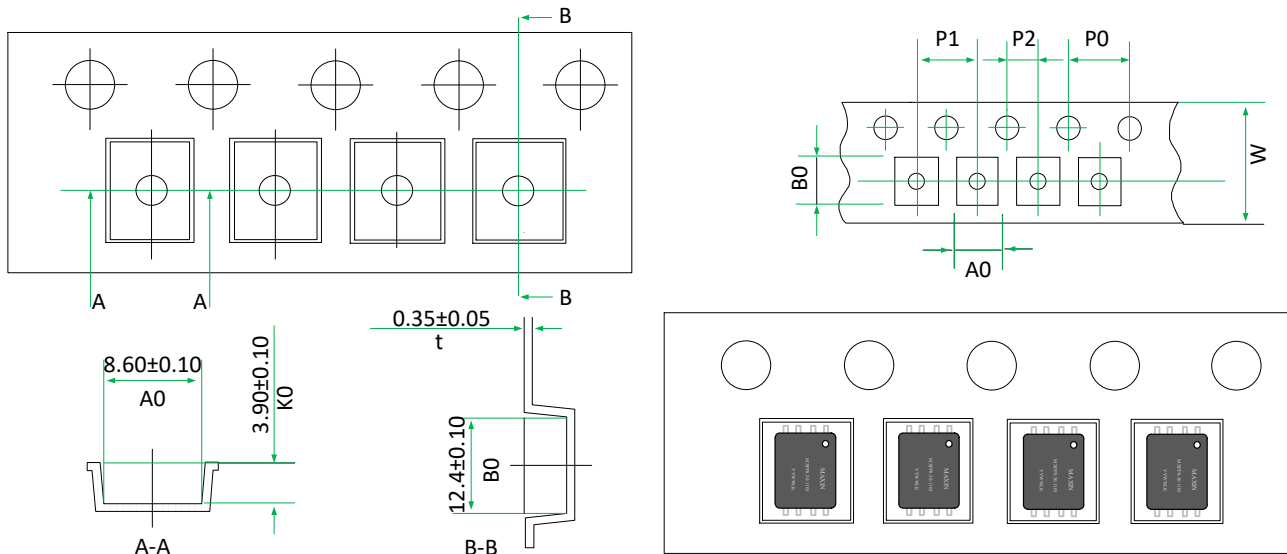
Schematic



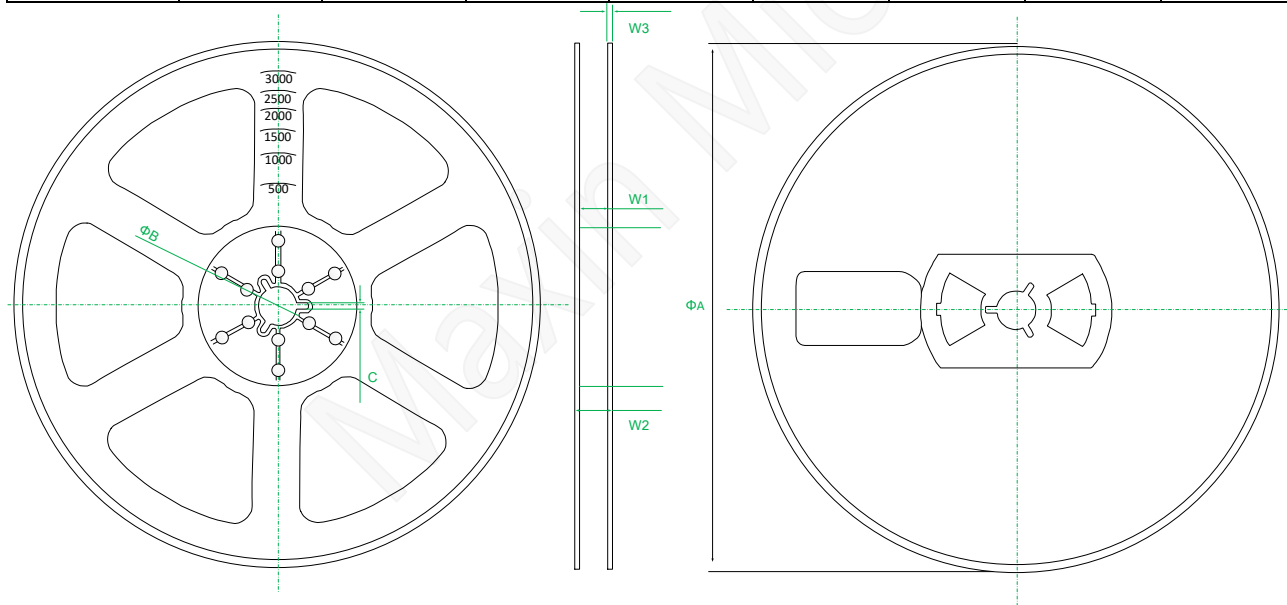
Package Dimensions (unit in mm)



Tape and Reel Information (unit in mm)

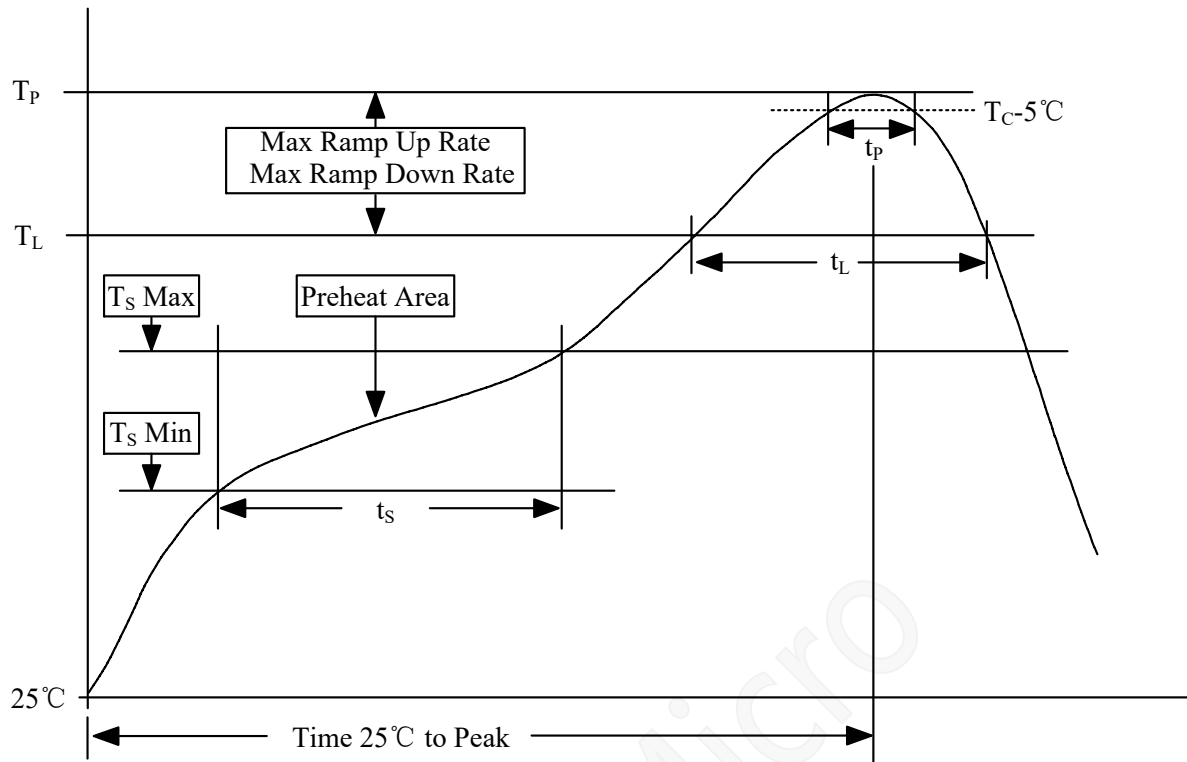


| Symbol | W | P0 | P1 | P2 | A0 | B0 | K0 | t |
|--------|-------|------|-------|------|------|-------|------|------|
| MAX | 24.30 | 4.10 | 16.10 | 2.10 | 8.80 | 13.50 | 4.00 | 0.40 |
| MIN | 23.70 | 3.90 | 15.90 | 1.90 | 8.60 | 13.30 | 3.80 | 0.30 |



| Symbol | ΦA | ΦB | C | W1 | W2 | W3 |
|--------|----------|----------|------|------|------|-----|
| MAX | 330 | 13.5 | 2.50 | 24.3 | 28.3 | 2.3 |
| MIN | 320 | 13.0 | 1.90 | 23.7 | 27.7 | 1.7 |

Classification Reflow Profile for SMT components



Classification Reflow Soldering Profile

| Profile feature | | Value |
|---|--------------------|---|
| Preheat temperature Min | T _s min | 150°C |
| Preheat temperature Max | T _s max | 200°C |
| Preheat time t _s from T _s min to T _s max | t _s | 60-120 seconds |
| Ramp up rate (T _L to T _P) | | 3°C / second max |
| Liquidous temperature | T _L | 217°C |
| Time t _L maintained above T _L | t _L | 60-150 seconds |
| Peak package body temperature | T _P | T _P ≤ T _C see table below |
| Time within 5°C of actual peak temperature | t _p | 20-30 seconds |
| Ramp down rate (T _P to T _L) | | 6°C / second max |
| Time 25°C to peak temperature | | 8minutes max |

Package Classification Reflow Temperature (T_C)

| Properties | Volume mm ³ <350 | Volume mm ³ 350-2000 | Volume mm ³ > 2000 |
|---|-----------------------------|---------------------------------|-------------------------------|
| PB-Free assembly Package thickness <1.6 mm | 260°C | 260°C | 260°C |
| PB-Free assembly Package thickness 1.6-2.5 mm | 260°C | 250°C | 245°C |
| PB-Free assembly Package thickness >2.5 mm | 250°C | 240°C | 245°C |

Restrictions on Product Use

- ◆ MAXIN micro is continually working to improve the quality and reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing MAXIN products, to comply with the standards of safety in making a safe design for the entire system, and to avoid situations in which a malfunction or failure of such MAXIN products could cause loss of human life, bodily injury or damage to property.
- ◆ In developing your designs, please ensure that MAXIN products are used within specified operating ranges as set forth in the most recent MAXIN products specifications.
- ◆ The information contained herein is subject to change without notice.

Version update record:

V11 The released version

V12 change the location of the pin1 mark in Tape and Reel

Maxin Micro