



DESCRIPTION: MAX250/MAX251 Compatible Converter Transformers

The **TP103MV** of converter transformers are specifically designed for use with Maxim chipsets to provide isolated RS232 interfaces. Carefully controlled turns ratios ensure consistent performance whilst a toroidal construction minimises EMI.

FEATURES

RoHS compliant	Maxim MAX250/MAX251 compatible	Isolation to 3500VDC, 5000VDC
Industry-standard pinout	Surface mount option	UL 94 V-0 package materials
Low profile	Toroidal construction	Fully encapsulated
Industrial temperature range	/	/

FEATURES

Part Number	Turn Ratio
TP103MV	1: 1.8
TP103MV/5H	1: 1.8

5KVDC isolation with /5H at the end of the part number. for example TP103MV/5H ;5KVDC isolated

CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Primary Inductance, L_P	10kHz, 20mV	0.618	1.0		mH
Leakage Inductance, L_L	10kHz, 20mV			25	μ H
Interwinding Capacitance, C_{WW}	10MHz, 20mV			5.2	pF
Primary D.C. Resistance, R_{DC}				1.34	Ω

ORDER CODE DETAILS

Order Code	Package Type	Packaging Type	Quantity
TP103MV	6 Pin SM	Tube	50
TP103MV-R	6 Pin SM	Tape & Reel	500

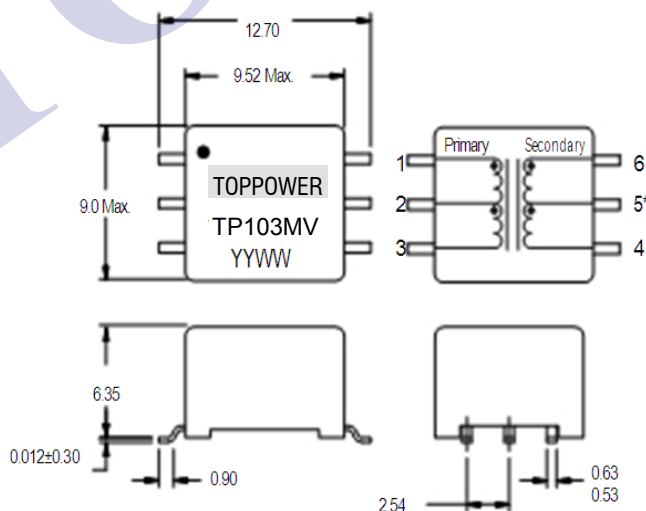
ABSOLUTE MAXIMUM RATINGS

Operating free air temperature range	-40°C to 125°C
Storage temperature range	-50°C to 150°C
Lead temperature 1.5mm from case for 10 seconds	300°C
Peak current, I_{PK}	310mA
Isolation voltage TP103MV (flash tested for 1 second)	3500VDC
Isolation voltage TP103MV/5H (flash tested for 1 second)	5000VDC

All specifications typical at TA=25°C

MECHANICAL DIMENSIONS

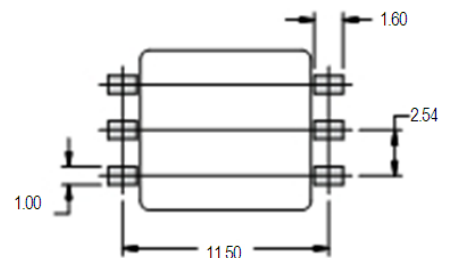
6 Pin SM



Unless otherwise stated all dimensions in inches ± 0.25 mm.
 All pins on a 2.54mm pitch and within ± 0.25 mm of true position.
 * Pin 5 is connected to secondary center tap. Package Weight 1.0g TYP.

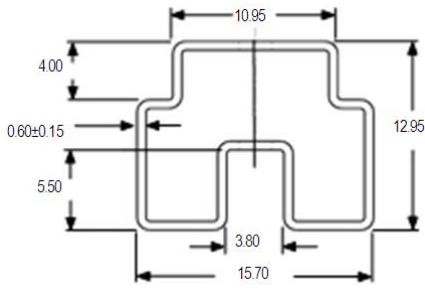
RECOMMENDED FOOTPRINT DETAILS

6 Pin SM



Unless otherwise stated all dimensions in inches (mm) ± 0.01 (0.25). All pins on a 0.1 (2.54) pitch and within ± 0.01 (0.25) of true position.

TUBE OUTLINE DIMENSIONS



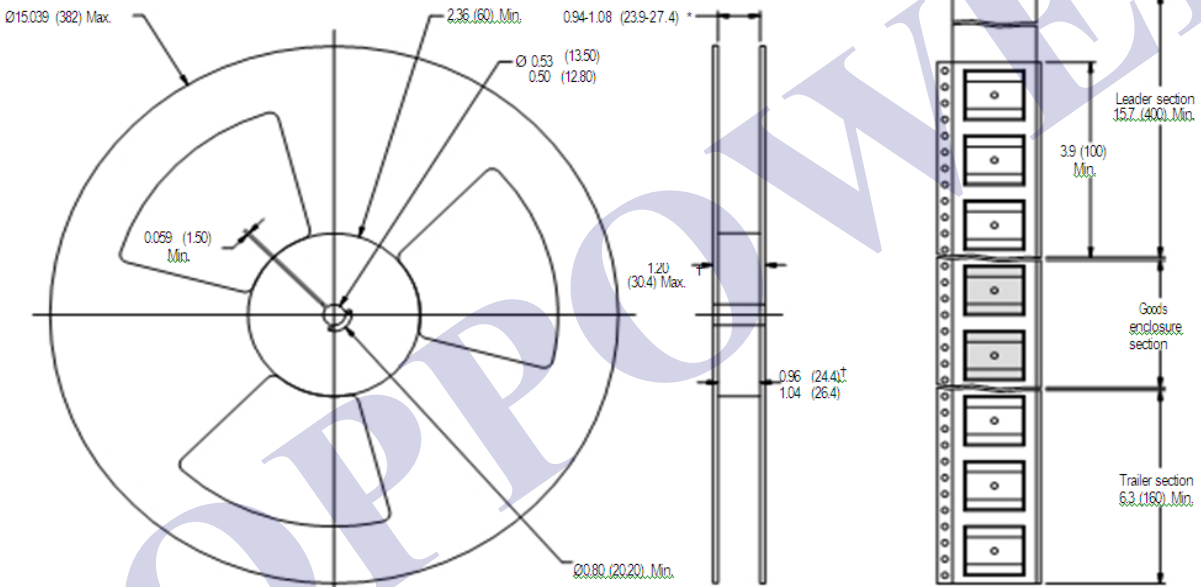
Unless otherwise stated all dimensions in inches (mm) ± 0.25 .
 Tube length: 18.3 ± 0.08 (465 ± 2).
 Tube material: Antistatic coated clear pvc.

SOLDERING INFORMATION

Pin finish	Matte tin
Peak wave solder temperature	300°C for 10 seconds
Peak reflow temperature	Max Temp 245°C, reflow time 60-90S

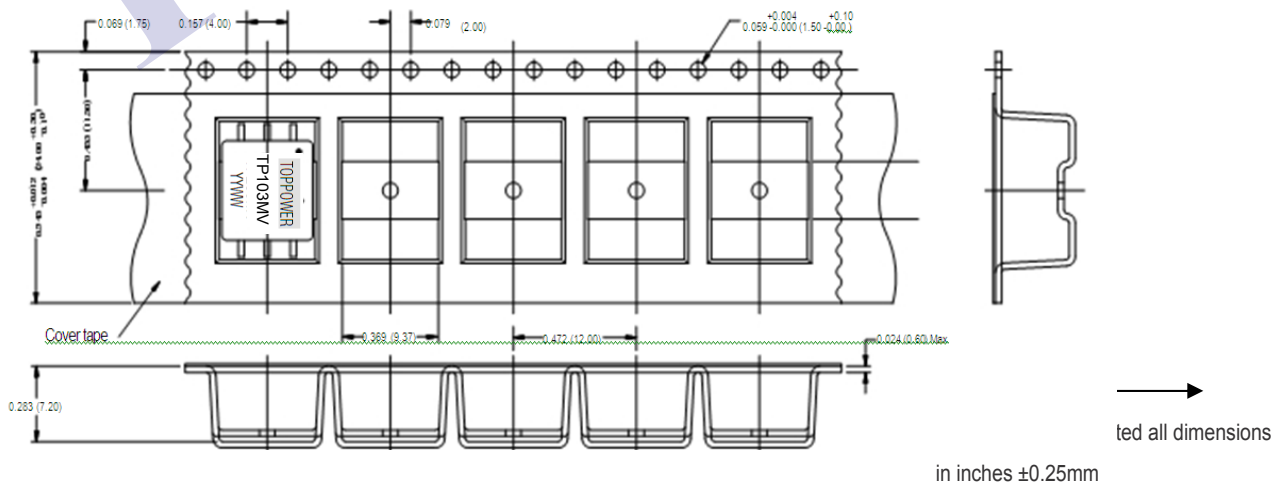
TAPE & REEL SPECIFICATIONS

REEL OUTLINE DIMENSIONS



Unless otherwise stated all dimensions in inches (mm) ± 0.01 (0.25).
 *Includes flange distortion at outer edge. t Measured at hub.

TAPE OUTLINE DIMENSIONS



in inches ± 0.25 mm