

## FEATURES

- Maxim Compatible
- Isolation to 4kV
- Surface Mount Options
- Toroidal Construction
- Standard Pinout
- UL 94V-0 Package Material
- Fully Encapsulated
- Low Profile
- Industrial Temperature Range

## DESCRIPTION

The 78250 series 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. The surface mount devices are fully compatible with CECC00802 to 280°C which allows them to be placed and reflowed with IC's thus reducing time and cost in production.

## SELECTION GUIDE 78250/78250M

Parameter	Conditions	MIN	TYP	MAX	Units
Primary Inductance, $L_p$	10kHz, 100mV	1.0	2.0	2.5	mH
Leakage Inductance, $L_l$	100kHz, 100mV		2.0	3.0	$\mu$ H
Interwinding Capacitance, $C_{ww}$	100kHz, 100mV		69	90	pF
D.C. Resistance, $R_{DC}$	<0.1VDC		1.0	2.0	
Volt-time Product, $E_T$	5kHz, 5V	50			V $\mu$ s

## SELECTION GUIDE 78250V/78250MV

Parameter	Conditions	MIN	TYP	MAX	Units
Primary Inductance, $L_p$	10kHz, 100mV	1.0	2.0	2.5	mH
Leakage Inductance, $L_l$	100kHz, 100mV		35	40	$\mu$ H
Interwinding Capacitance, $C_{ww}$	100kHz, 100mV		9	12	pF
D.C. Resistance, $R_{DC}$	<0.1VDC		1.4	1.8	
Volt-time Product, $E_T$	5kHz, 5V	50			V $\mu$ s

## ABSOLUTE MAXIMUM RATINGS

Operating free air temperature range	-40°C to 85°C
Storage temperature range	-50°C to 125°C
Lead Temperature 1.5mm from case for 10 seconds	300°C
Peak current $I_{PK}$	300mA
Isolation voltage 78250(M) (flash tested for 1 second)	1500Vrms
Isolation voltage 78250V(M) (flash tested for 1 second)	4000Vrms

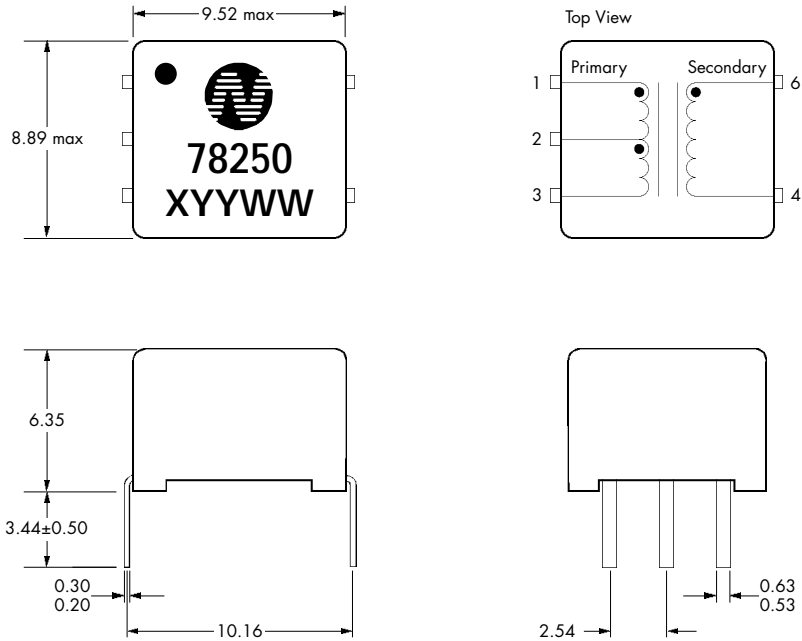
All specifications typical at  $T_A=25^\circ\text{C}$ .

# 78250 SERIES

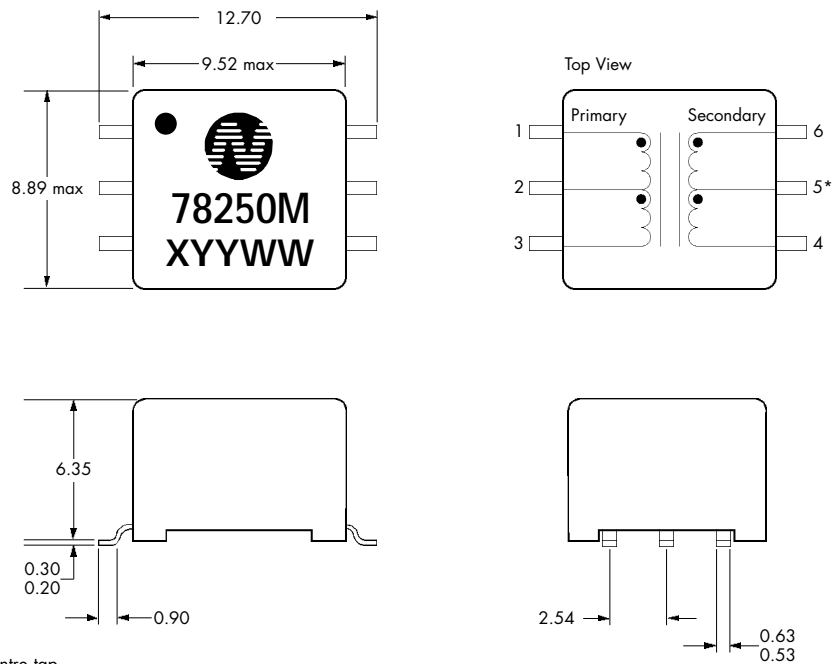
## Converter Transformers

### MECHANICAL DIMENSIONS

#### 6 Pin DIP



#### 6 Pin SM



\* Pin 5 is connected to secondary centre tap.

All dimensions in mm XX.XX ±0.25mm. All pins on a 2.54mm pitch and within ±0.25mm of true position.

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NMP 78250.2

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