

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	μ 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 μ 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	μ 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 μ 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

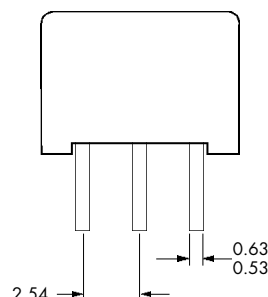
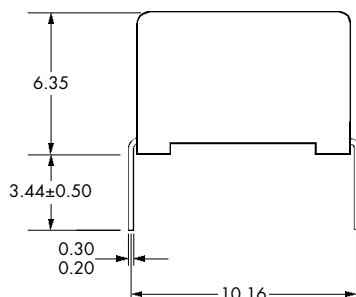
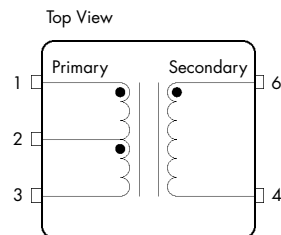
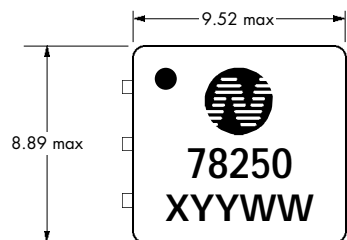
All specifications typical at $T_A=25^\circ\text{C}$.

78250 SERIES

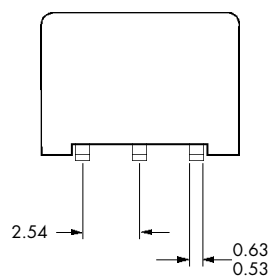
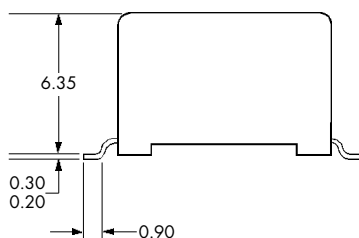
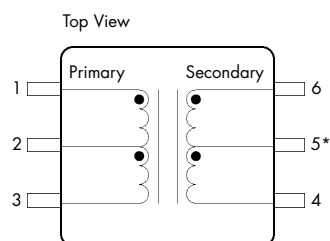
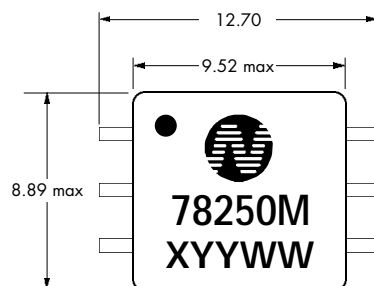
Converter Transformers

MECHANICAL DIMENSIONS

6 Pin DIP



6 Pin SM



* Pin 5 is connected to secondary centre tap.

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

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