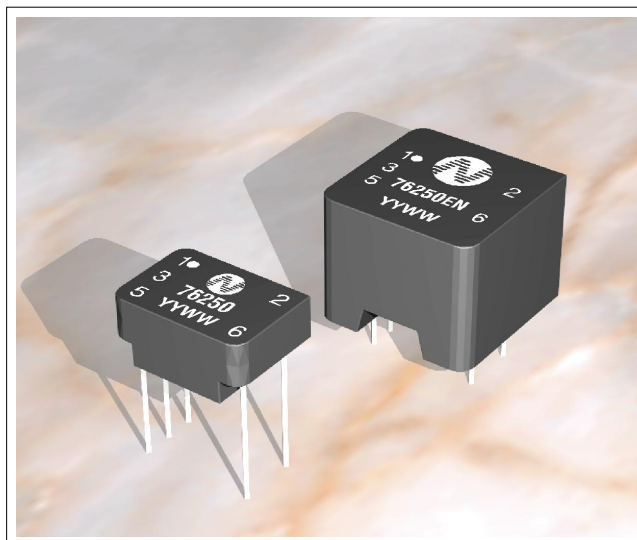


features

- Maxim Compatible
- BS EN 60950 Approved
- Isolation to 6kV
- Toroidal Construction
- Standard Pinout
- UL 94V-0 Package Material
- Fully Encapsulated
- Low Profile
- Industrial Temp. Range Available

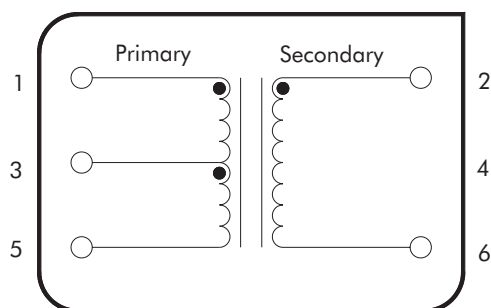


description

The 76250 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 `EN' devices are fully approved to BS EN 60950 for use in telecoms applications.

pin connections

6 Pin DIP (top view)



BS EN 60950 CERTIFIED

Certified to meet BS EN 60950, BS EN 60065
Certificate numbers 7819 and 7820 apply.

76250 SERIES

Converter Transformers

absolute maximum ratings over operating free air temperature range

Operating free air temperature range	0°C to 70°C
Operating free air temperature range 76250X.	-40°C to 85°C
Storage temperature range	-60°C to 125°C
Lead Temperature 1.5mm from case for 10 seconds	300°C
Peak current I _{PK}	300mA
Isolation voltage 76250 76250X (flash tested for 1 second)	1500Vrms
Isolation voltage 76250EN (flash tested for 1 second)	6000VDC
Isolation voltage 76250KV4 (flash tested for 1 second)	4000Vrms

electrical specifications over operating free air temperature range

76250

Parameter	Test Conditions	Value			Package Style	Unit
		Min.	Typ.	Max.		
Turns Ratio	N _P :N _S		1CT:1		1	
Primary Inductance, L _P	100kHz, 100mV	1.0	2.0	2.5		mH
Leakage Inductance, L _L	100kHz, 100mV		2.0	3.0		μH
Interwinding Capacitance, C _{ww}	100kHz, 100mV		50	100		pF
DC Resistance, R _{DC}	< 0.1VDC		1.0	2.0		Ω
Volt-time Product, E _T	5kHz, 5V	50				Vμs

Note : All data taken at T_A = 25°C.

electrical specifications over operating free air temperature range

76250KV4

Parameter	Test Conditions	Value			Package Style	Unit
		Min.	Typ.	Max.		
Turns Ratio	$N_p:N_s$		1CT:1		1	
Primary Inductance, L_p	100kHz, 100mV	1.0	2.0	2.5		mH
Leakage Inductance, L_L	100kHz, 100mV		35	40		μ H
Interwinding Capacitance, C_{WW}	100kHz, 100mV		5.0	10		pF
DC Resistance, R_{DC}	< 0.1VDC		1.0	2.0		Ω
Volt-time Product, E_T	5kHz, 5V	50				V μ s

76250EN

Parameter	Test Conditions	Value			Package Style	Unit
		Min.	Typ.	Max.		
Turns Ratio	$N_p:N_s$		1CT:1		2	
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		5.0	10		pF
DC Resistance, R_{DC}	< 0.1VDC		1.0	2.0		Ω
Volt-time Product, E_T	5kHz, 5V	50				V μ s

Note : All data taken at $T_A = 25^\circ\text{C}$.

76250 SERIES

Converter Transformers

electrical specifications over operating free air temperature range

76250X

Parameter	Test Conditions	Value			Package Style	Unit
		Min.	Typ.	Max.		
Turns Ratio	$N_p:N_s$		1CT:1		1	
Primary Inductance, L_p	10kHz, 100mV	2.5	3.25	4.0		mH
Leakage Inductance, L_L	100kHz, 100mV		0.45	3.0		μ H
Interwinding Capacitance, C_{ww}	100kHz, 100mV		50	100		pF
DC Resistance, R_{DC}	< 0.1VDC		1.0	2.0		Ω
Volt-time Product, E_T	10kHz, 5V	35	40			$V\mu s$

Note : All data taken at $T_A = 25^\circ C$.

The 76250EN converter transformer was tested by British Standards Institute (BSI) and received certificate numbers 7819 and 7820 confirming compliance with :

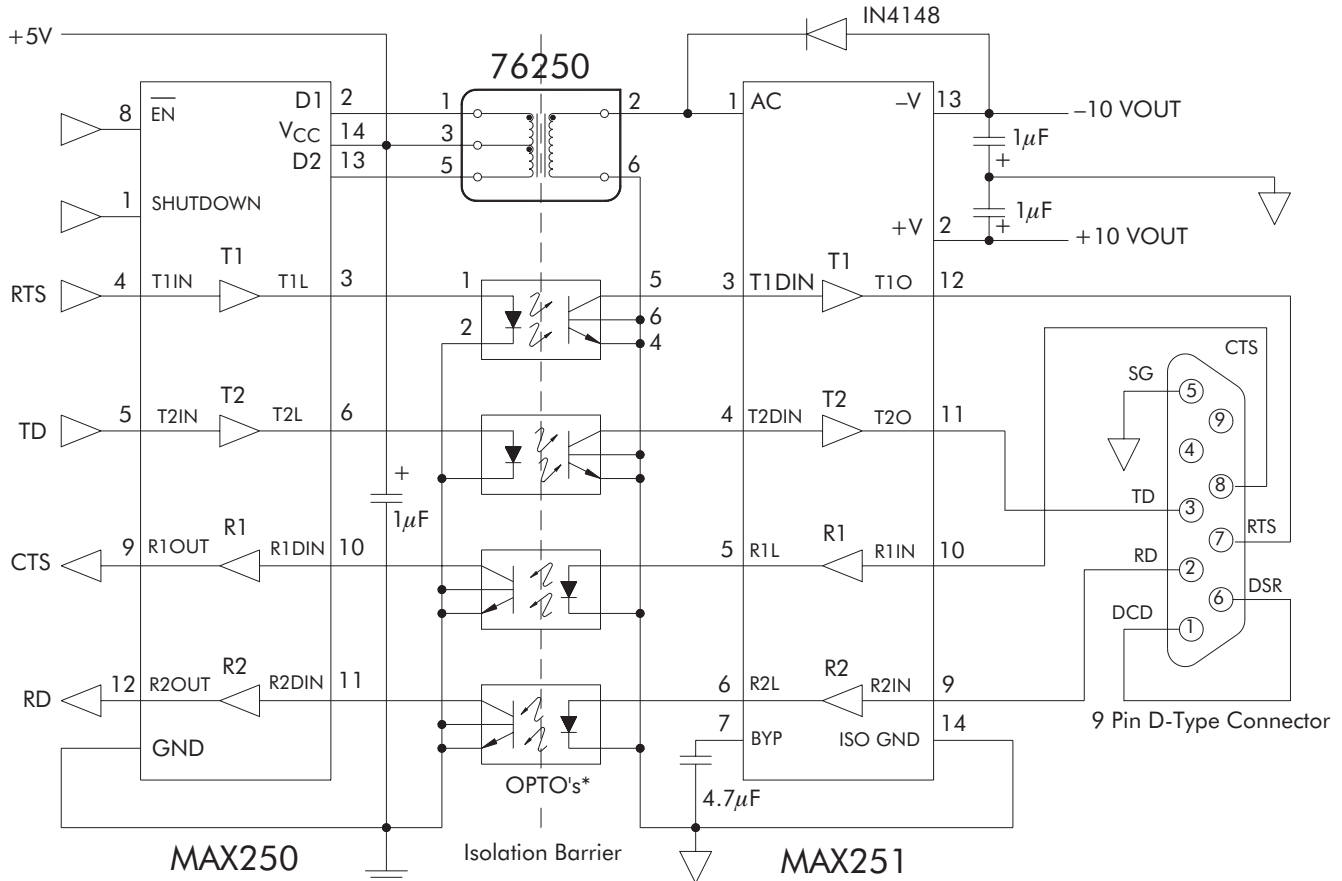
BS EN 60950 : 1994 (BS 415 : 1994)

BS EN 41003 : 1992 (BS 7002 : 1992)

EN 60950 is derived from IEC 950 and is equivalent to UL 1950 and CSA 950 standards.

typical application

isolated RS-232 interface



OPTO'S* - 4 x 4N26 (76250), 4 x CNY17-3 or 4 x SFH610 (76250KV4 & 76250EN).

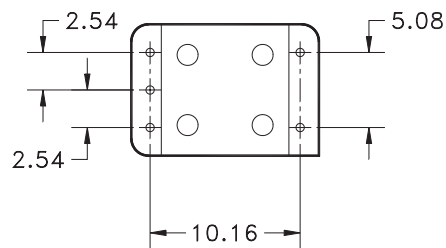
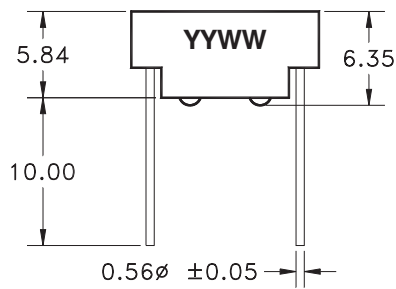
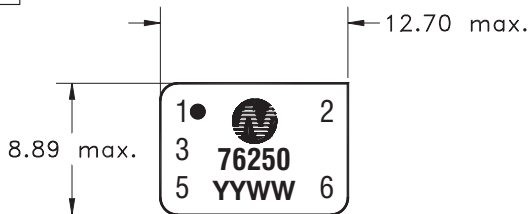
76250 SERIES

Converter Transformers

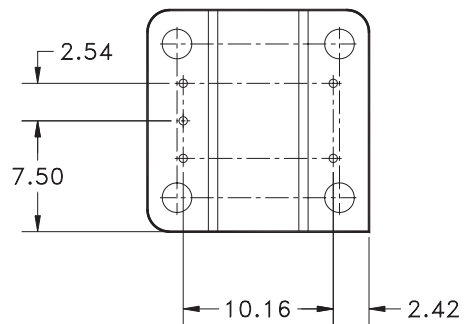
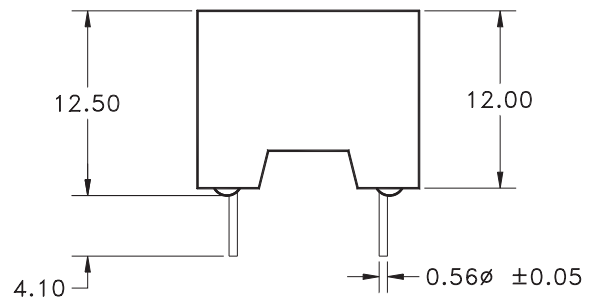
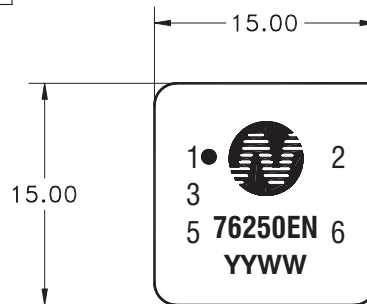
outline dimensions

6 Pin DIP package styles

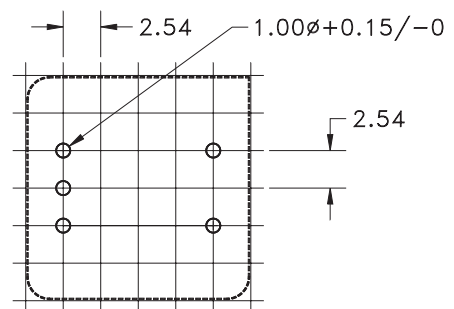
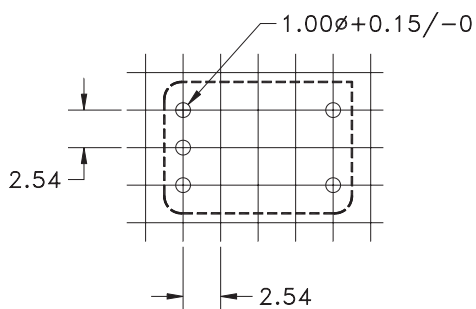
1



2



recommended footprint details



All pins on a 2.54mm pitch
All dimensions in mm XX.XX \pm 0.25