Murata Power Solutions

782482 Series

ADM2482E/ADM2487E Compatible Converter Transformers

FEATURES

- RoHS compliant
- Analog Devices ADM2482E/ADM2487E compatible
- 4.0kVDC isolation
- Industry-standard pinout
- UL 94 V-0 package materials
- Low profile
- Toroidal construction
- Fully encapsulated
- Industrial temperature range
- Surface mount versions available soon
- Recommended by Analog Devices, Inc.
- Backward compatible with Sn/Pb soldering systems

DESCRIPTION

The 782482 series of converter transformers are specifically designed for use with Analog Devices chipsets to provide isolated RS-485 and RS-422 interfaces. Carefully controlled turns ratios ensure consistent performance whilst a toroidal construction minimises EMI.

SELECTION GUIDE

Order Code	Nominal Input Voltage	Nominal Output Voltage	Isolation Voltage	Turns Ratio	Package Style
	V	V	VDC		
782482/33VC	3.3	3.3	4000	1CT:1.33CT	DIL
782482/53VC	5.0	3.3	4000	1.14CT:1CT	DIL

CHARACTERISTICS

Parameter	Conditions	782482/33VC		782482/53VC		Units
		Min.	Max.	Min.	Max.	
Primary Inductance, L_P[1]	100kHz, 20mV	190	310	150	260	µH
Leakage Inductance, L_L[1]	100kHz, 250mV		8		8	µH
Interwinding Capacitance, C_{WW}	100kHz, 250mV		8		8	pF
Primary DC Resistance, R_{DC}[1]	<0.1VDC		600		600	mΩ
Volt-time Product, Et[2]	5kHz, 5V	13		13		Vµs

ABSOLUTE MAXIMUM RATINGS

Operating free air temperature range	-40°C to 85°C
Storage temperature range	-50°C to 125°C
Isolation voltage (flash tested for 1 second)	4.0kVDC

SOLDERING INFORMATION[3]

Peak wave solder temperature	260°C for 10 seconds
Pin finish	Matte tin

Specifications typical at T_A = 25°C

1 L_P, L_L and R_{DC} measured between pins 1-3.
2 Where pulse applied across pins 1 and 2.
3 For further information, please visit www.murata-ps.com/rohs

TECHNICAL NOTES

ISOLATION VOLTAGE

'Hi Pot Test', 'Flash Tested', 'Withstand Voltage', 'Proof Voltage', 'Dielectric Withstand Voltage' & 'Isolation Test Voltage' are all terms that relate to the same thing, a test voltage, applied for a specified time, across a component designed to provide electrical isolation, to verify the integrity of that isolation.

All products in this series are 100% production tested at their stated isolation voltage.

A question commonly asked is, "What is the continuous voltage that can be applied across the part in normal operation?"

For a part holding no specific agency approvals both input and output should normally be maintained within SELV limits i.e. less than 42.4V peak, or 60VDC. The isolation test voltage represents a measure of immunity to transient voltages and the part should never be used as an element of a safety isolation system. The part could be expected to function correctly with several hundred volts offset applied continuously across the isolation barrier; but then the circuitry on both sides of the barrier must be regarded as operating at an unsafe voltage and further isolation/insulation systems must form a barrier between these circuits and any user-accessible circuitry according to safety standard requirements.

REPEATED HIGH-VOLTAGE ISOLATION TESTING

It is well known that repeated high-voltage isolation testing of a barrier component can actually degrade isolation capability, to a lesser or greater degree depending on materials, construction and environment. This series has toroidal isolation transformers, with no additional insulation between primary and secondary windings of enameled wire. While parts can be expected to withstand several times the stated test voltage, the isolation capability does depend on the wire insulation. Any material, including this enamel (typically polyurethane) is susceptible to eventual chemical degradation when subject to very high applied voltages thus implying that the number of tests should be strictly limited. We therefore strongly advise against repeated high voltage isolation testing, but if it is absolutely required, that the voltage be reduced by 20% from specified test voltage.

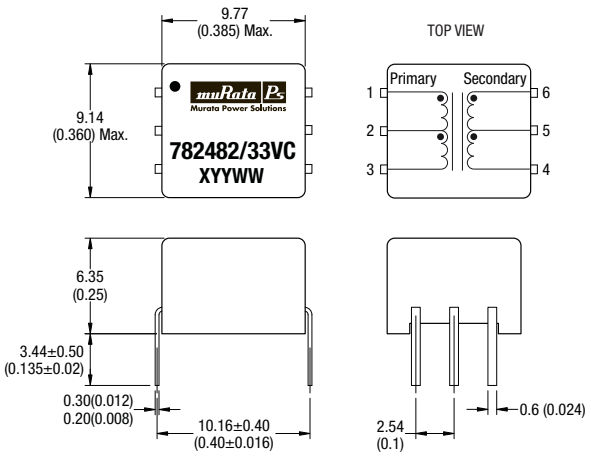
This consideration equally applies to agency recognized parts rated for better than functional isolation where the wire enamel insulation is always supplemented by a further insulation system of physical spacing or barriers.

RoHS COMPLIANT 2002/95/EC

For full details go to www.murata-ps.com/rohs

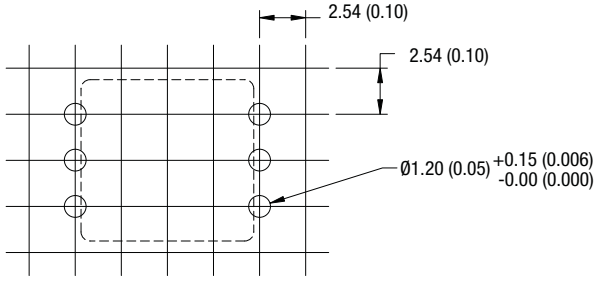
PACKAGE SPECIFICATIONS

MECHANICAL DIMENSIONS



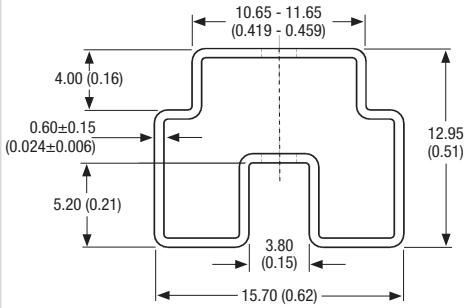
Unless otherwise stated all dimensions in mm (inches) ±0.25 (0.01).
All pins on a 2.54 (0.1) pitch and within ±0.25 (0.01) of true position.
Package Weight 1.1g TYP.

RECOMMENDED FOOTPRINT DETAILS



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

TUBE OUTLINE DIMENSIONS



Unless otherwise stated all dimensions in mm (inches) ±0.25 (0.01).

Tube length: 500±2 (19.7±0.08)
Tube quantity: 50
Tube material: Antistatic coated clear PVC.

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ISO 9001 and 14001 REGISTERED

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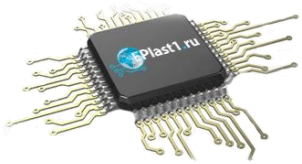
Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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