SELECTION GUIDE (Continued)

Order Code	Turns Ratio	Min. Primary Inductance	Primary Min. Volt-time Product, Et	Typ. Leakage Inductance	Typ. Interwinding Capacitance	Max. DC Resistance	Isolation Voltage	Winding Configuration	Recommended Alternative
		µH	Vµs	µH	pF	Ω	Vrms		
NRND									
78601/4MC	1:1	67	4	0.19	8	0.17			78601/4JC
78601/3MC	1:1	200	6	0.20	14	0.25			78601/3JC
78601/2MC	1:1	500	10	0.25	22	0.34			78601/2JC
78601/8MC	1:1	1000	15	0.29	35	0.45	1000	1	78601/8JC
78601/1MC	1:1	2000	20	0.47	49	0.60			78601/1JC
78601/16MC	1:1	4000	28	0.47	78	0.84			78601/16JC
78601/9MC	1:1	10000	56	0.86	121	1.30			78601/9JC
78602/4MC	1:1:1	67	4	0.11	12	0.18			78602/4JC
78602/3MC	1:1:1	200	6	0.17	19	0.24			78602/3JC
78602/2MC	1:1:1	500	10	0.27	32	0.34			78602/2JC
78602/8MC	1:1:1	1000	15	0.35	47	0.46	1000	2	78602/8JC
78602/1MC	1:1:1	2000	20	0.60	72	0.66			78602/1JC
78602/16MC	1:1:1	4000	28	0.71	116	0.92			78602/16JC
78602/9MC	1:1:1	10000	56	0.71	167	1.34			78602/9JC
78604/4MC	2:1	67	4	0.41	4	0.18			78604/4JC
78604/3MC	2:1	200	6	0.49	9	0.25			78604/3JC
78604/2MC	2:1	500	10	0.65	13	0.34			78604/2JC
78604/8MC	2:1	1000	15	0.76	20	0.46	1000	1	78604/8JC
78604/1MC	2:1	2000	20	0.99	29	0.60			78604/1JC
78604/16MC	2:1	4000	28	1.61	50	0.85			78604/16JC
78604/9MC	2:1	10000	56	1.64	72	1.23			78604/9JC
78613/4MC	1CT:1	67	4	0.30	7	0.20			78613/4JC
78613/3MC	1CT:1	200	6	0.65	12	0.25			78613/3JC
78613/2MC	1CT:1	500	10	1.07	20	0.36			78613/2JC
78613/8MC	1CT:1	1000	15	1.13	35	0.48	1000	3	78613/8JC
78613/1MC	1CT:1	2000	20	1.53	47	0.63			78613/1JC
78613/16MC	1CT:1	4000	28	1.98	64	0.88			78613/16JC
78613/9MC	1CT:1	10000	56	3.83	72	1.33			78613/9JC
78615/4MC	1CT:1CT	67	4	1.21	3	0.17			78615/4JC
78615/3MC	1CT:1CT	200	6	3.64	5	0.24			78615/3JC
78615/2MC	1CT:1CT	500	10	6.86	7	0.34			78615/2JC
78615/8MC	1CT:1CT	1000	15	11.9	10	0.45	1000	4	78615/8JC
78615/1MC	1CT:1CT	2000	20	16.0	16	0.60			78615/1JC
78615/16MC	1CT:1CT	4000	28	37.7	20	0.87			78615/16JC
78615/9MC	1CT:1CT	10000	56	44.5	19	1.33			78615/9JC

All specifications typical at T_A=25°C

ORDER CODE DETAILS			
Order Code	Package Type	Packaging Type	Quantity
786XX/XC	6 Pin DIL	Tube	50
786XX/XMC	6 Pin SM	Tube	50
786XX/XMC-R	6 Pin SM	Tape & Reel	500

ABSOLUTE MAXIMUM RATINGS	
Operating free air temperature range	0°C to 70°C
Storage temperature range	-60°C to 125°C

SOLDERING INFORMATION[1]	
Pin finish	Matte tin
Peak wave solder temperature	300°C for 10 seconds
Peak reflow temperature[2]	220°C

All specifications typical at T_A=25°C

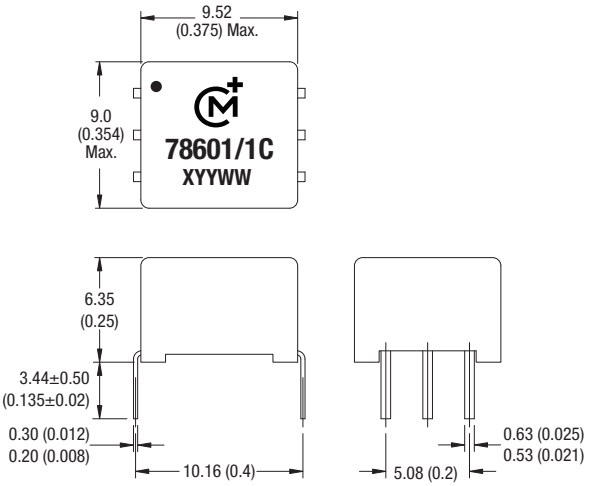
1 For further information, please visit www.murata-ps.com/rohs

2 For higher temperature reflow variants see 786J series datasheet

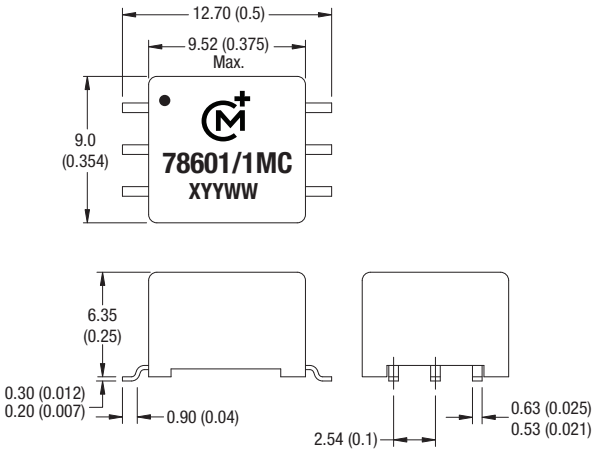
PACKAGE SPECIFICATIONS

MECHANICAL DIMENSIONS

6 Pin DIL Package Style



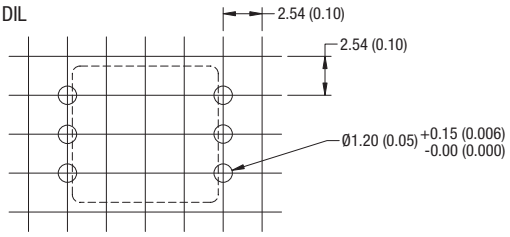
6 Pin SMD Package Style



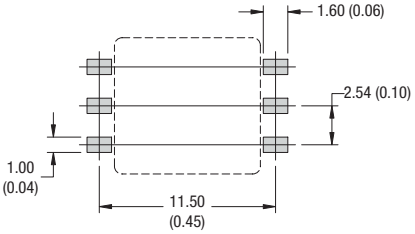
Unless otherwise stated all dimensions in mm (inches) ±0.25 (0.01). All pins on a 2.54 (0.1) pitch and within ±0.25 (0.01) of true position.
Package Weight: 1.1g Typ.

RECOMMENDED FOOTPRINT DETAILS

6 Pin DIL

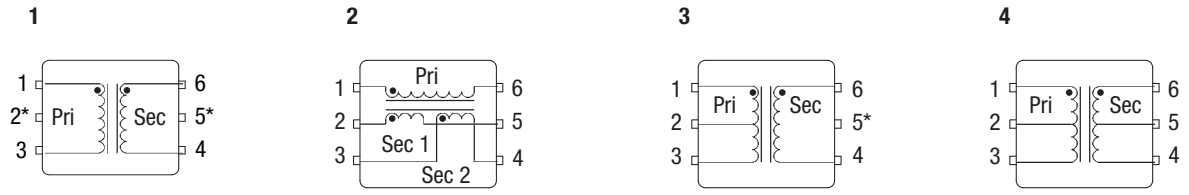


6 Pin SM



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.

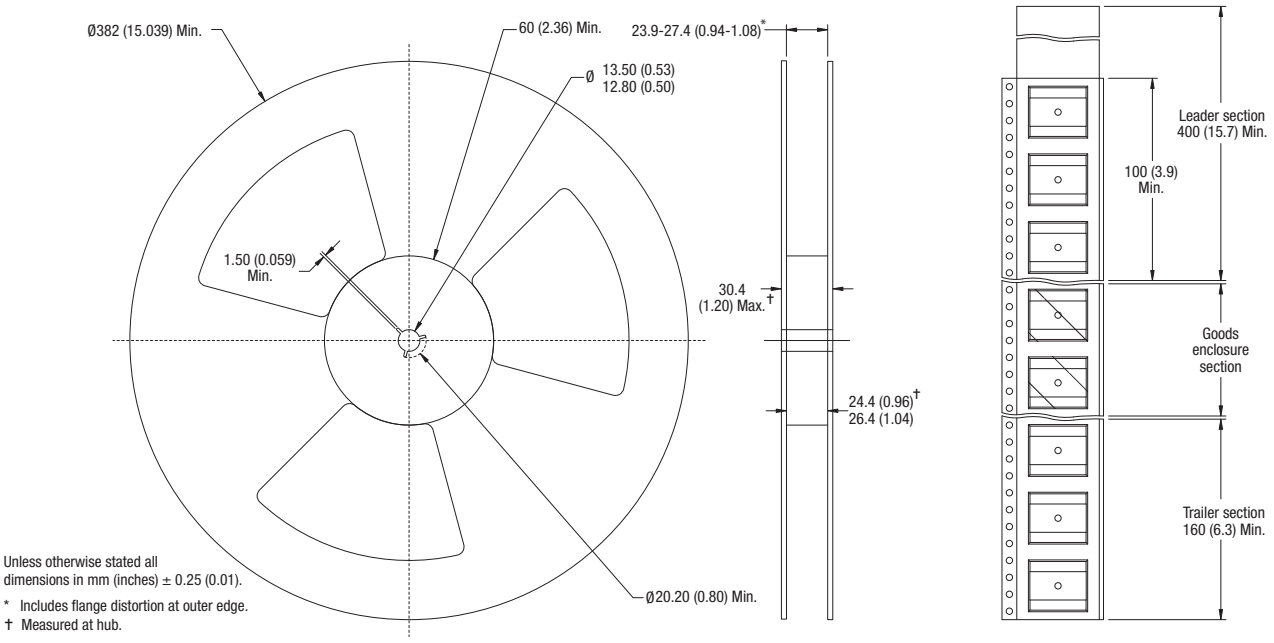
WINDING CONFIGURATION - 6 PIN DIL/SMD (TOP VIEW)



* Pins only fitted on 786XX/XMC and 786XX/XMC-R variants.

TAPE & REEL SPECIFICATIONS

REEL OUTLINE DIMENSIONS

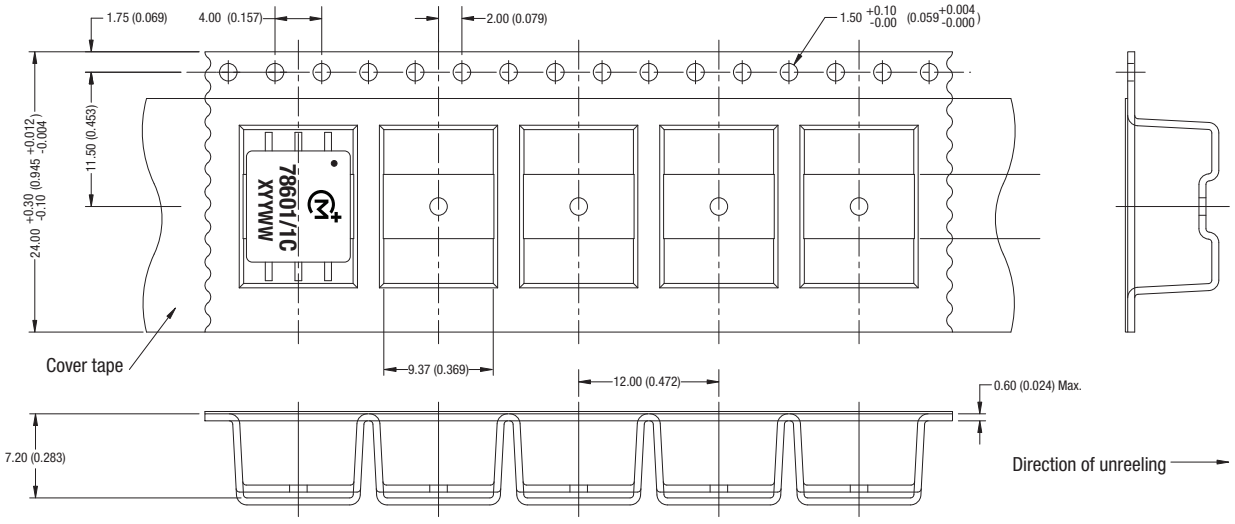


Unless otherwise stated all dimensions in mm (inches) ± 0.25 (0.01).

* Includes flange distortion at outer edge.

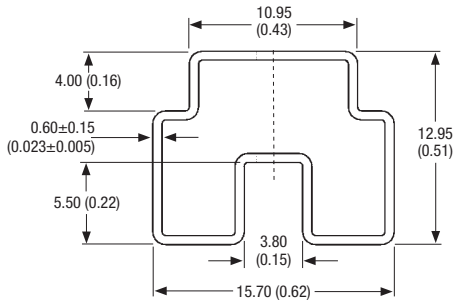
† Measured at hub.

TAPE OUTLINE DIMENSIONS



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

TUBE OUTLINE DIMENSIONS



Tube length: 465±2 (18.3±0.08). Tube quantity: 50.
Tube material: Antistatic coated clear pvc.
Unless otherwise stated all dimensions in mm (inches) ±0.25 (0.01).

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 enamelled 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 recognised 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.

DISCLAIMER

Unless otherwise stated in the datasheet, all products are designed for standard commercial and industrial applications and NOT for safety-critical and/or life-critical applications.

Particularly for safety-critical and/or life-critical applications, i.e. applications that may directly endanger or cause the loss of life, inflict bodily harm and/or loss or severe damage to equipment/property, and severely harm the environment, a prior explicit written approval from Murata is strictly required. Any use of Murata standard products for any safety-critical, life-critical or any related applications without any prior explicit written approval from Murata shall be deemed unauthorised use.

These applications include but are not limited to:

- Aircraft equipment
- Aerospace equipment
- Undersea equipment
- Power plant control equipment
- Medical equipment
- Transportation equipment (automobiles, trains, ships, etc.)
- Traffic signal equipment
- Disaster prevention / crime prevention equipment
- Data Processing equipment

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Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous consequences of failures, monitor failures and their consequences, lessen the likelihood of failures that might cause harm, and take appropriate remedial actions. Buyer will fully indemnify and hold Murata, its affiliated companies, and its representatives harmless against any damages arising out of unauthorised use of any Murata products in any safety-critical and/or life-critical applications.

Remark: Murata in this section refers to Murata Manufacturing Company and its affiliated companies worldwide including, but not limited to, Murata Power Solutions.