

FEATURES

- RoHS compliant¹
- Up to 22A saturation current
- 5.8μH to 57.8μH
- High energy storage, low resistance
- UL 94V-0 packaging materials
- J-STD-020D.1 reflow
- Custom inductance values available

PRODUCT OVERVIEW

The 6000A series is a range of high-current, surface-mount power inductors. They are designed for use in power applications such as DC-DC converters, energy storage and input or output filtering. The products are supplied in tape and reel for high-volume, automated surface-mount assembly.

SELECTION GUIDE

Order Code	Inductance, L	Isat ⁴	DC Current ²	SRF	DC Resistance
	0.1V@100KHz (±10%) μH	Max. A	Max. A	Typ. MHz	Max. mΩ
60A582C	5.8	22	14.5	31	5
60A782C	7.8	19	13.5	26	6
60A103C	10.2	17	12.0	21	7
60A163C	16.0	13	9.6	17	9
60A193C	19.4	12	8.5	15	11
60A233C	23.0	11	8.4	13	12
60A273C	27.0	10	7.5	13	15
60A313C	31.4	9.5	6.8	12	18
60A363C	36.0	8.8	6.4	11	20
60A413C	41.0	8.4	5.6	10	26
60A583C	57.8	6.2	4.9	8	36

ABSOLUTE MAXIMUM RATINGS

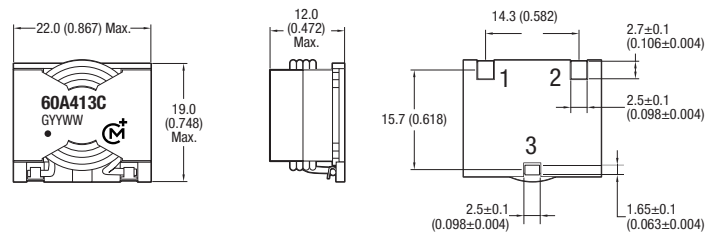
Operating free air temperature range	-40°C to 85°C
Storage temperature range	-40°C to 150°C

SOLDERING INFORMATION¹

Peak reflow solder temperature	245°C
Pin finish	Pure tin
Moisture sensitivity level ³	1

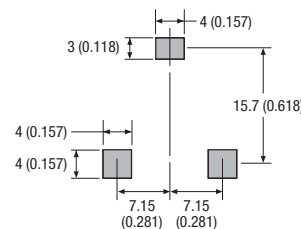
PACKAGE SPECIFICATIONS

Mechanical Dimensions⁵



Package weight: 12.7g Typ.

Recommended Pad Layout



All dimensions in mm (inches)

Specifications typical at T_a = 25°C

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

2 The maximum DC current is the value at which the inductance falls to 75% of its nominal value or when its temperature rise reaches 40°C, whichever is sooner.

3 Representative samples of the product were subjected to the conditioning described in IPC/JEDEC J-STD-020D and passed electrical testing, package coplanarity and visual inspection which revealed no external cracks or changes in package body flatness.

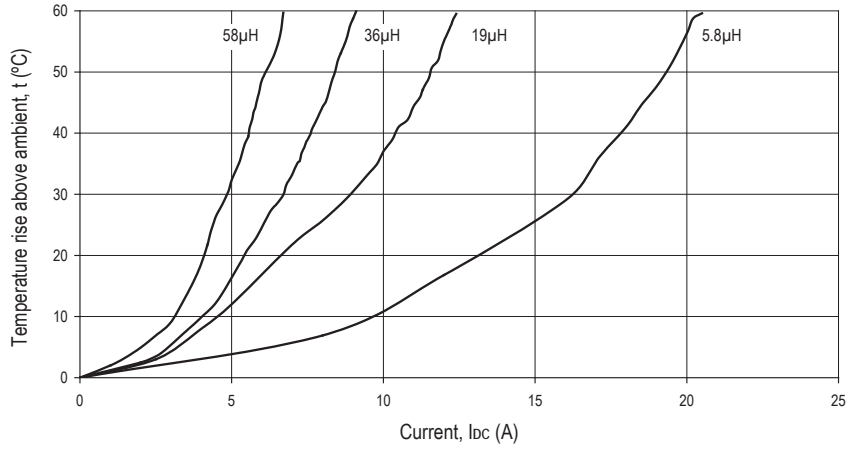
4 The instantaneous value when inductance drops to 80% of its normal value.

5 Terminal 3 is open-circuit and for mounting stability only.

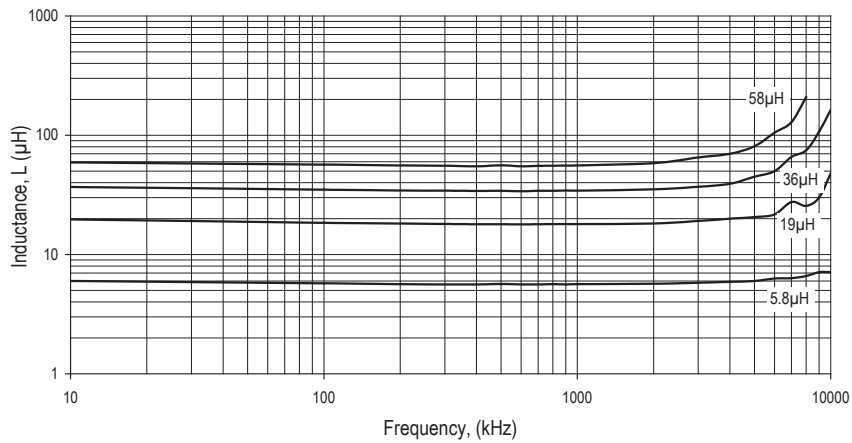


For full details go to
www.murata-ps.com/rohs

TEMPERATURE Vs CURRENT

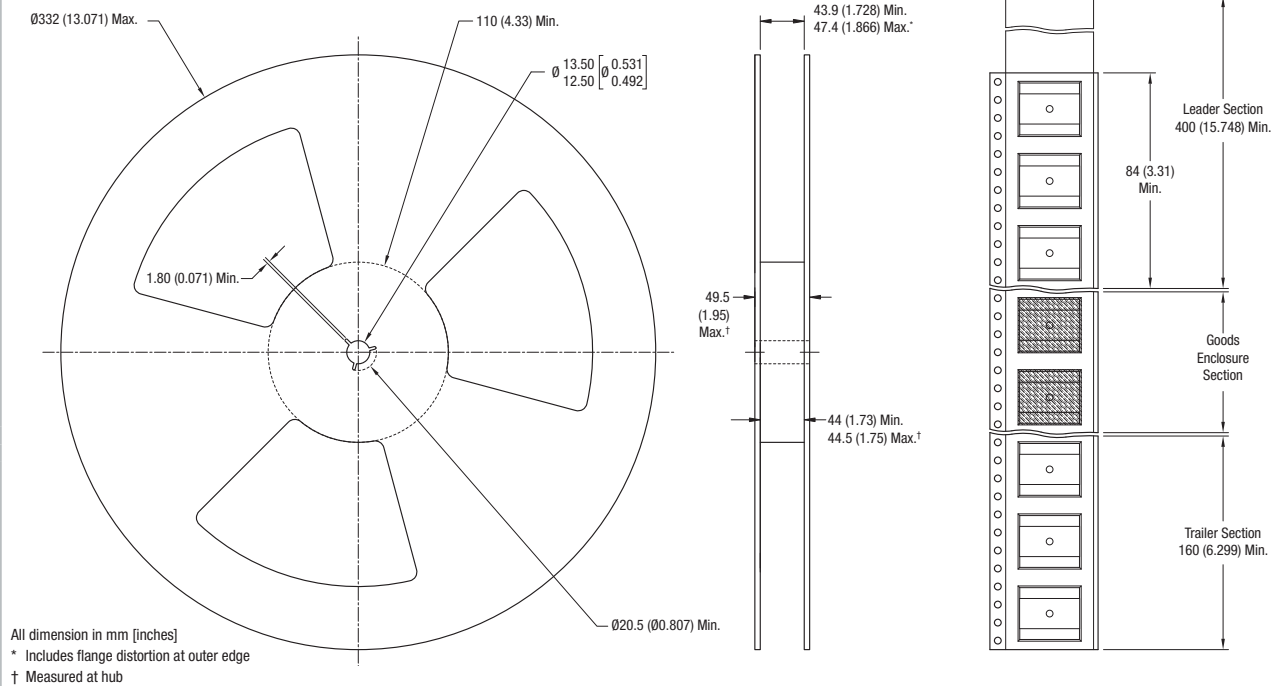


INDUCTANCE Vs FREQUENCY

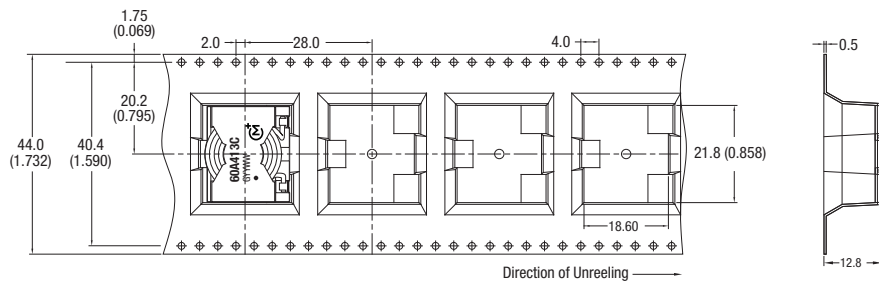


PACKAGE SPECIFICATIONS

Mechanical Dimensions



Tape Outline Dimensions



Reel quantity: 200
 Unless otherwise stated, all dimensions in mm (inches).

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

Murata makes no express or implied warranty, representation, or guarantee of suitability, fitness for any particular use/purpose and/or compatibility with any application or device of the buyer, nor does Murata assume any liability whatsoever arising out of unauthorised use of any Murata product for the application of the buyer. The suitability, fitness for any particular use/purpose and/or compatibility of Murata product with any application or device of the buyer remain to be the responsibility and liability of the buyer.

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.



This product is subject to the following [operating requirements](#) and the [Life and Safety Critical Application Sales Policy](#):

Refer to: <https://www.murata.com/en-eu/products/power/requirements>

Murata Power Solutions (Milton Keynes) Ltd. makes no representation that the use of its products in the circuits described herein, or the use of other technical information contained herein, will not infringe upon existing or future patent rights. The descriptions contained herein do not imply the granting of licenses to make, use, or sell equipment constructed in accordance therewith. Specifications are subject to change without notice.

© 2021 Murata Power Solutions (Milton Keynes) Ltd.