



## FEATURES

- RoHS compliant
- Radial format
- Integral EMI shield
- Compact size
- Up to 4.7A I<sub>dc</sub>
- 6.8μH to 22mH
- Low DC resistance
- UL 94V-0 materials
- Backward compatible with Sn/Pb soldering systems

## DESCRIPTION

The 1200LRS Series of inductors is suitable for power line filtering in low to medium current applications such as switching power supply circuits. The integral ferrite shield makes these devices ideal for protecting circuits susceptible to EMI.

For higher current versions with the same footprint see our 1200RS Series.

## SELECTION GUIDE

| Order Code | Inductance<br>(0.1V@10kHz) | DC Current <sup>1</sup> | DC Resistance |
|------------|----------------------------|-------------------------|---------------|
|            | ±15%                       | Max.                    | Max.          |
|            | μH                         | A                       | mΩ            |
| 12LRS682C  | 6.8 ±20%                   | 4.7                     | 20            |
| 12LRS103C  | 10 ±20%                    | 3.4                     | 50            |
| 12LRS153C  | 15 ±20%                    | 3.0                     | 70            |
| 12LRS223C  | 22 ±20%                    | 2.6                     | 90            |
| 12LRS333C  | 33 ±20%                    | 2.1                     | 110           |
| 12LRS473C  | 47 ±20%                    | 1.7                     | 140           |
| 12LRS683C  | 68                         | 1.6                     | 160           |
| 12LRS104C  | 100                        | 1.4                     | 200           |
| 12LRS154C  | 150                        | 1.0                     | 350           |
| 12LRS224C  | 220                        | 0.78                    | 540           |
| 12LRS334C  | 330                        | 0.63                    | 860           |
| 12LRS474C  | 470                        | 0.53                    | 1230          |
| 12LRS684C  | 680                        | 0.50                    | 1650          |
| 12LRS105C  | 1000                       | 0.40                    | 2300          |
| 12LRS155C  | 1500                       | 0.31                    | 3400          |
| 12LRS225C  | 2200                       | 0.28                    | 4600          |
| 12LRS335C  | 3300                       | 0.20                    | 8700          |
| 12LRS475C  | 4700                       | 0.18                    | 10500         |
| 12LRS685C  | 6800                       | 0.15                    | 15000         |
| 12LRS106C  | 10000                      | 0.12                    | 24000         |
| 12LRS156C  | 15000                      | 0.095                   | 37000         |
| 12LRS226C  | 22000                      | 0.073                   | 70000         |

## ABSOLUTE MAXIMUM RATINGS

|                                      |                |
|--------------------------------------|----------------|
| Operating free air temperature range | -40°C to +85°C |
| Storage temperature range            | -40°C to 125°C |

## SOLDERING INFORMATION<sup>2</sup>

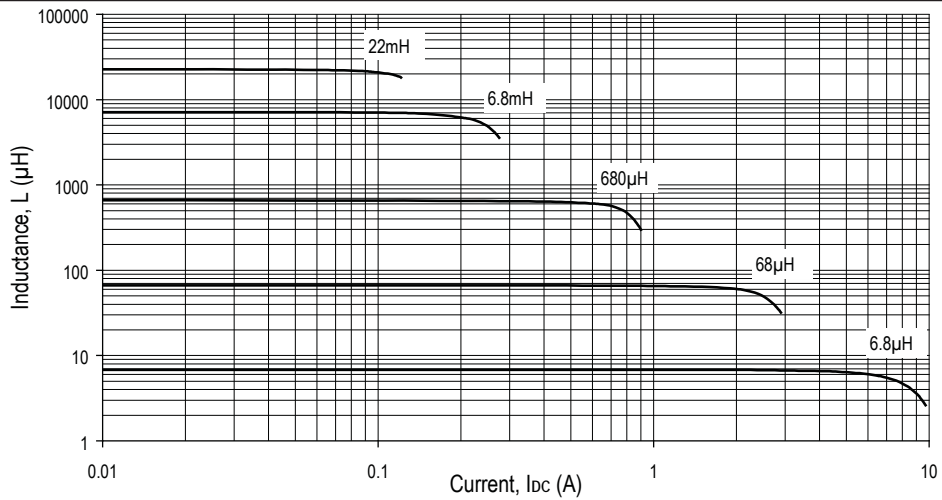
|                              |                      |
|------------------------------|----------------------|
| Peak wave solder temperature | 260°C for 10 seconds |
| Pin finish                   | Matte tin            |

All specifications typical at T<sub>a</sub>=25°C

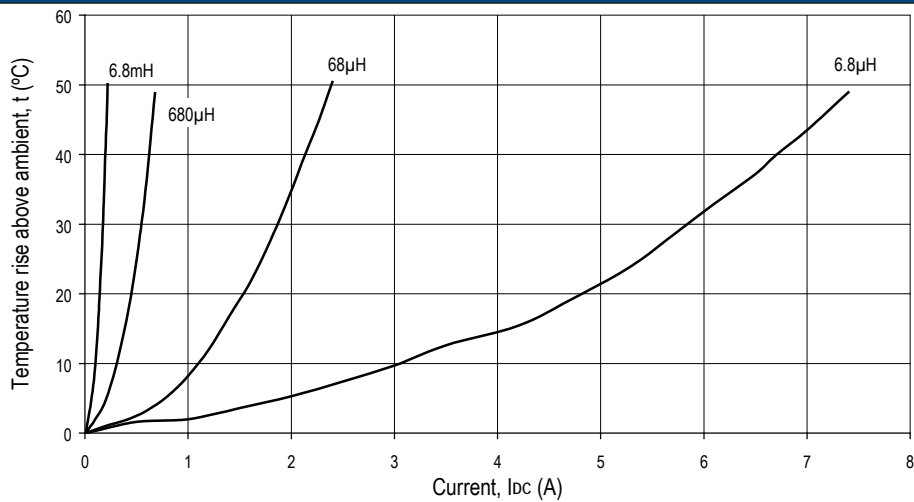
- 1 Maximum DC current occurs when either the inductance falls to 75% of its nominal value or when its temperature rise reaches 40°C, whichever is sooner.
- 2 For further information, please visit [www.murata-ps.com/rohs](http://www.murata-ps.com/rohs)



### INDUCTANCE Vs CURRENT



### TEMPERATURE Vs CURRENT

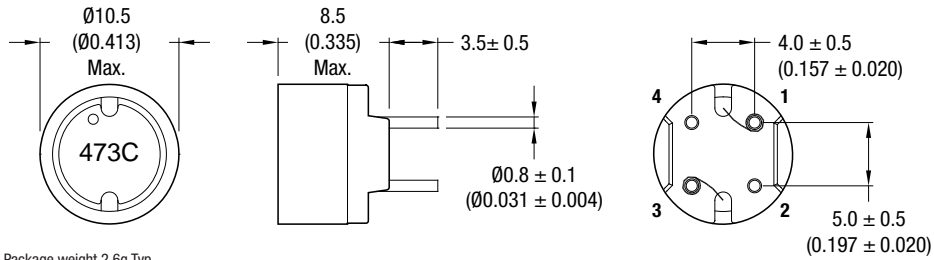


### INDUCTANCE Vs FREQUENCY



## PACKAGE SPECIFICATIONS

### MECHANICAL DIMENSIONS



All dimensions in mm (inches). Package weight 2.6g Typ.

### RECOMMENDED FOOTPRINT DETAILS



All dimensions in mm (inches)

### SCHEMATIC



### PACKAGING DETAILS

Supplied in cartons (250 pieces per carton)