

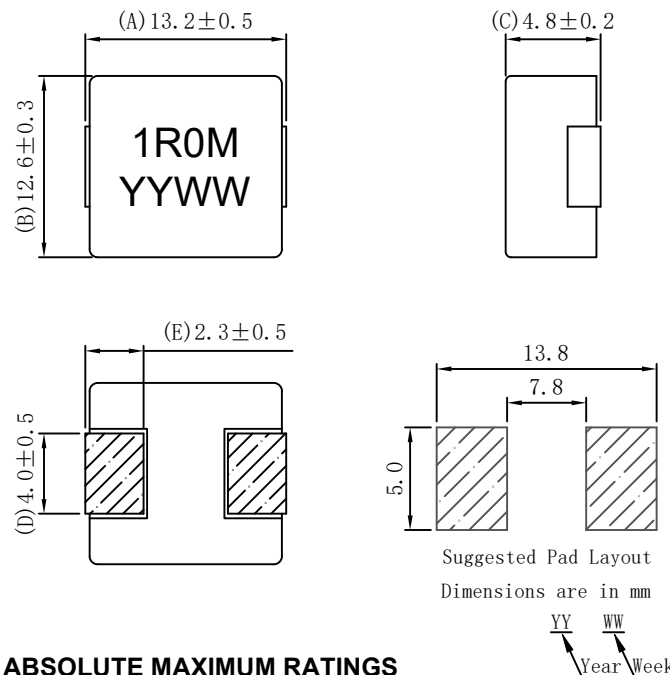
## FEATURES

- RoHS compliant, UL94V-0
- Small size (13.7\*12.9mm Max), low profile (Height: 5.0mm Max)
- Inductance range from 0.22uH to 10.0uH
- Surface mount design
- Magnetic shield construction
- Ultra low buzz noise due to composite construction
- Handle transient current spikes without saturation
- Excellent temperature stability for inductance and saturation
- Tape & reel packing
- Solder profile acc. J-STD-020D

## APPLICATIONS

- Low profile, high current power supplies
- DC/DC converters
- Battery powered devices
- PDA/notebook/desktop/server applications

| Part number    | Inductance<br>( $\mu\text{H} \pm 20\%$ ) | DCR (m $\Omega$ ) @25 $^{\circ}\text{C}$ |       | Irms<br>(A) | Isat<br>(A) |
|----------------|--|--|-------|-------------|-------------|
|                |  | TYP.                                     | MAX.  |             |             |
| MHA1250NSGR22M | 0.22                                     | 0.60                                     | 0.80  | 51.00       | 75.00       |
| MHA1250NSGR36M | 0.36                                     | 0.77                                     | 1.10  | 41.00       | 60.00       |
| MHA1250NSGR47M | 0.47                                     | 1.00                                     | 1.30  | 35.00       | 47.40       |
| MHA1250NSGR68M | 0.68                                     | 1.34                                     | 1.55  | 32.50       | 46.00       |
| MHA1250NSGR82M | 0.82                                     | 1.50                                     | 1.67  | 30.00       | 39.00       |
| MHA1250NSG1R0M | 1.00                                     | 1.90                                     | 2.20  | 26.00       | 35.00       |
| MHA1250NSG1R5M | 1.50                                     | 2.70                                     | 3.20  | 23.00       | 32.00       |
| MHA1250NSG2R2M | 2.20                                     | 4.00                                     | 5.00  | 15.00       | 25.00       |
| MHA1250NSG3R3M | 3.30                                     | 7.50                                     | 9.00  | 12.00       | 23.00       |
| MHA1250NSG4R7M | 4.70                                     | 12.00                                    | 14.00 | 11.00       | 17.00       |
| MHA1250NSG5R6M | 5.60                                     | 13.00                                    | 15.00 | 10.50       | 15.00       |
| MHA1250NSG6R8M | 6.80                                     | 15.00                                    | 18.00 | 10.00       | 14.00       |
| MHA1250NSG8R2M | 8.20                                     | 17.00                                    | 20.00 | 9.00        | 13.00       |
| MHA1250NSG100M | 10.0                                     | 22.00                                    | 25.00 | 8.00        | 12.00       |



## ABSOLUTE MAXIMUM RATINGS

Operating temperature rang -55 $^{\circ}\text{C}$  to +125 $^{\circ}\text{C}$   
(Including coil' self temperature rise)  
Storage temperature rang -55 $^{\circ}\text{C}$  to +125 $^{\circ}\text{C}$

## SOLDERING INFORMATION

Peak reflow temperature 250 $^{\circ}\text{C}$   
Pin finish tin

## PACKAGING INFORMATION

Tape & Reel 500pcs per reel  
Weight 4.8g/pcs

## Notes

1. Electrical specification at 25 $^{\circ}\text{C}$ .
2. Inductance tested at 100 kHz, 0.25Vrms.
3. Irms is the current that caused a approximate 40 $^{\circ}\text{C}$  temperature rise from 25 $^{\circ}\text{C}$  ambient.
4. Isat is the DC current at which inductance drop approximately 30% from its value without current.
5. The part temperature (ambient + temp. rise) should not exceed 125 $^{\circ}\text{C}$  under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.