



Features

- Formerly J.W. Miller® model
- Height of 4.0 mm max.
- Current rating up to 3.5 A
- RoHS compliant*

Applications

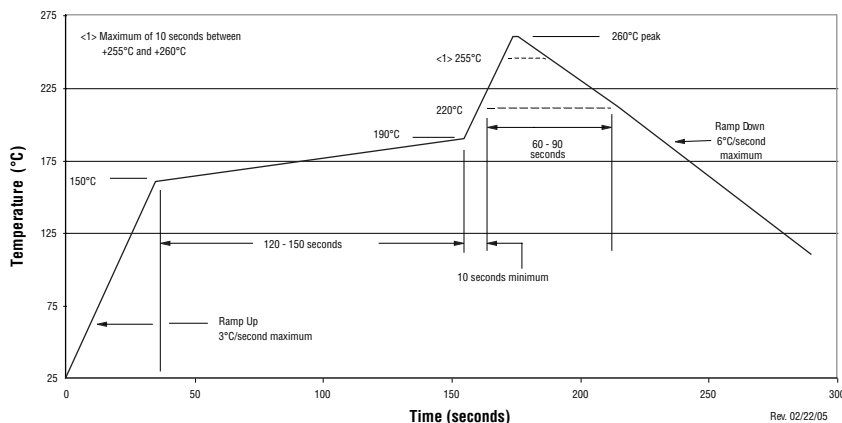
- Input/output of DC/DC converters
- Power supplies for:
 - Portable communication equipment
 - Camcorders
 - LCD TVs
 - Car radios

PM638S Series - Shielded SMD Power Inductor

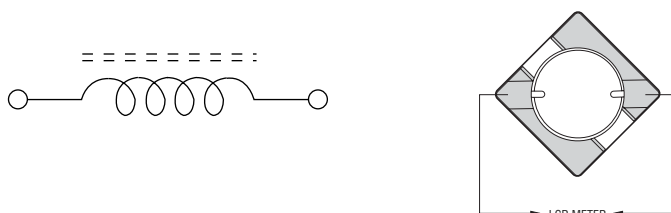
Electrical Specifications

Bourns Part No.	Inductance 100 kHz		Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	DCR Max. (mΩ)	I _{rms} (A)	I _{sat} (A)
	(μH)	Tol. %						
PM638S-3R3-RC	3.3	±30	9.8	7.96	75.9	20	3.50	3.60
PM638S-5R0-RC	5.0	±30	8.9	7.96	42.6	24	2.90	2.95
PM638S-6R2-RC	6.2	±30	9.0	7.96	42.3	27	2.50	2.60
PM638S-7R4-RC	7.4	±30	7.5	7.96	32.9	31	2.30	2.55
PM638S-8R2-RC	8.2	±30	7.4	7.96	29.6	34	2.20	2.45
PM638S-8R7-RC	8.7	±30	7.3	7.96	27.5	34	2.20	2.35
PM638S-100-RC	10	±30	8.8	2.52	24.9	38	2.00	2.05
PM638S-120-RC	12	±30	8.3	2.52	17.9	53	1.70	1.95
PM638S-150-RC	15	±30	8.6	2.52	18.0	57	1.60	1.90
PM638S-180-RC	18	±30	8.0	2.52	13.8	92	1.50	1.70
PM638S-220-RC	22	±30	8.8	2.52	13.9	96	1.30	1.60
PM638S-270-RC	27	±30	7.7	2.52	12.5	109	1.20	1.30
PM638S-330-RC	33	±30	8.6	2.52	12.5	124	1.10	1.20
PM638S-390-RC	39	±30	8.3	2.52	11.8	138	1.00	1.10
PM638S-470-RC	47	±30	8.5	2.52	10.4	155	0.95	1.00
PM638S-560-RC	56	±30	8.2	2.52	8.8	202	0.85	0.90
PM638S-680-RC	68	±30	7.4	2.52	7.5	234	0.75	0.87
PM638S-820-RC	82	±30	7.6	2.52	7.6	324	0.70	0.75
PM638S-101-RC	100	±30	6.7	0.796	6.2	358	0.65	0.68

Soldering Profile



Electrical Schematic



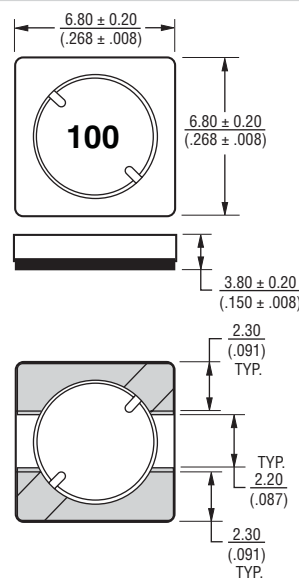
General Specifications

Test Voltage 0.1 V, 100 KHz
 Reflow Soldering 230 °C; 50 sec max.
 Operating Temperature
 -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature .. -40 °C to +125 °C
 Resistance to Soldering Heat
 260 °C for 10 sec.

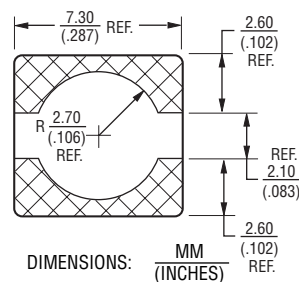
Materials

Core Material Ferrite
 Wire Enameled Copper
 Adhesive Epoxy Resin
 Terminal Ag/Ni/Sn
 Rated Current Ind. drop of 35 % typ.
 at I_{sat}
 Temperature Rise 30 °C typ. at I_{rms}
 Packaging 1000 pcs. per reel

Product Dimensions



Recommended Layout

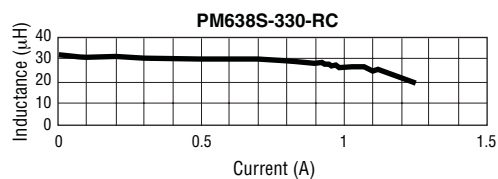
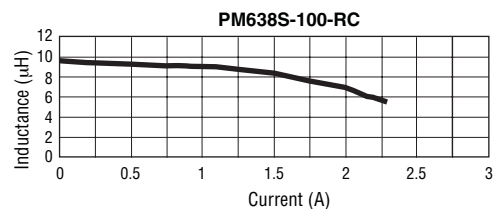
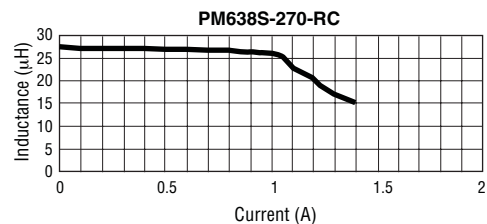
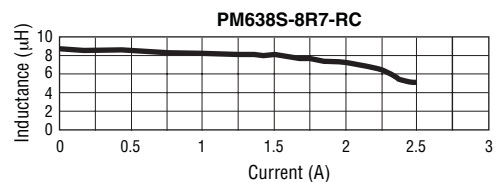
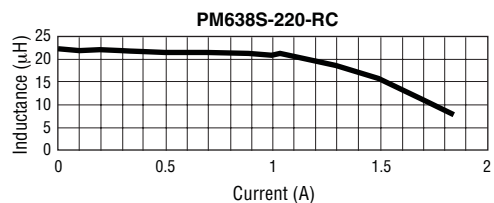
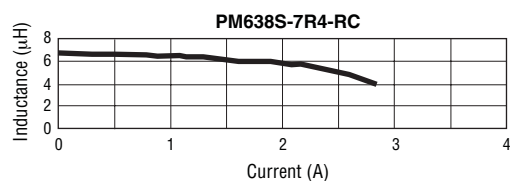
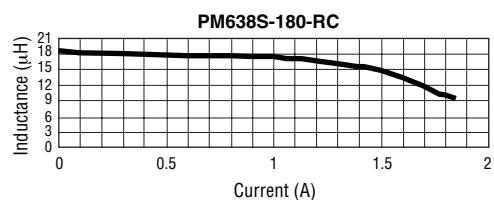
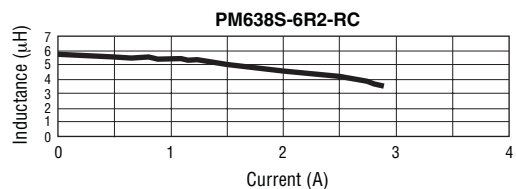
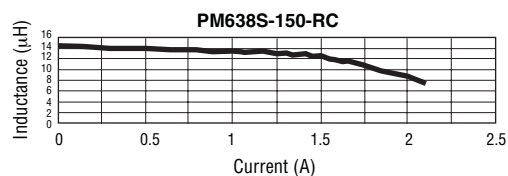
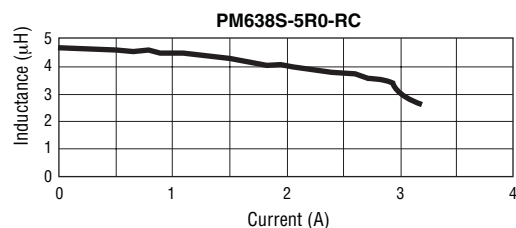
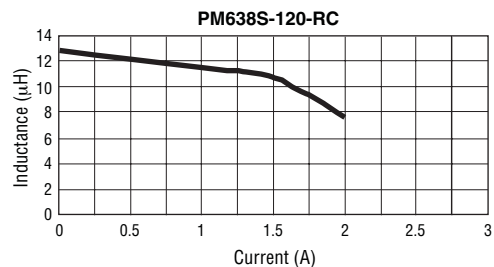
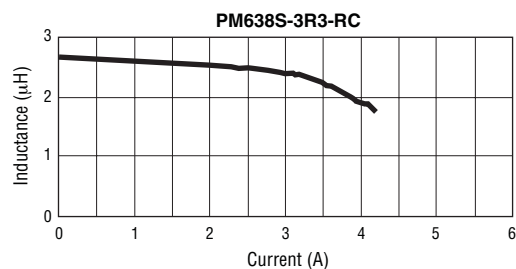


*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
 Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications.

PM638S Series - Shielded SMD Power Inductor

BOURNS®

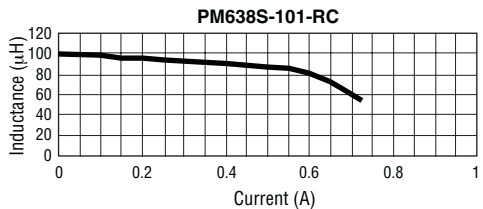
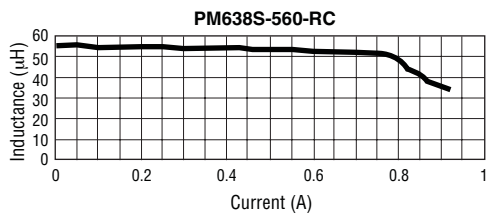
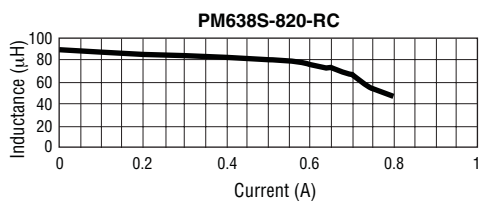
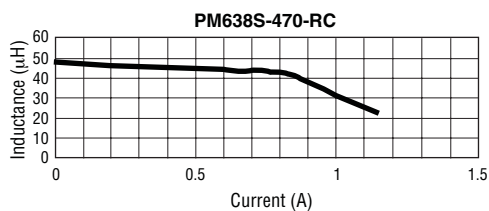
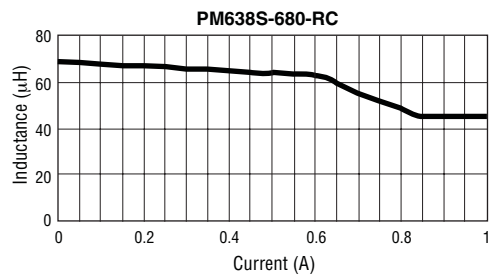
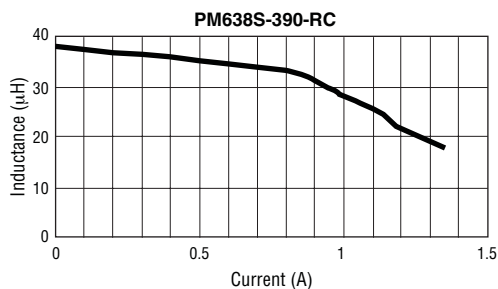
Inductance vs. Current



PM638S Series - Shielded SMD Power Inductor

BOURNS®

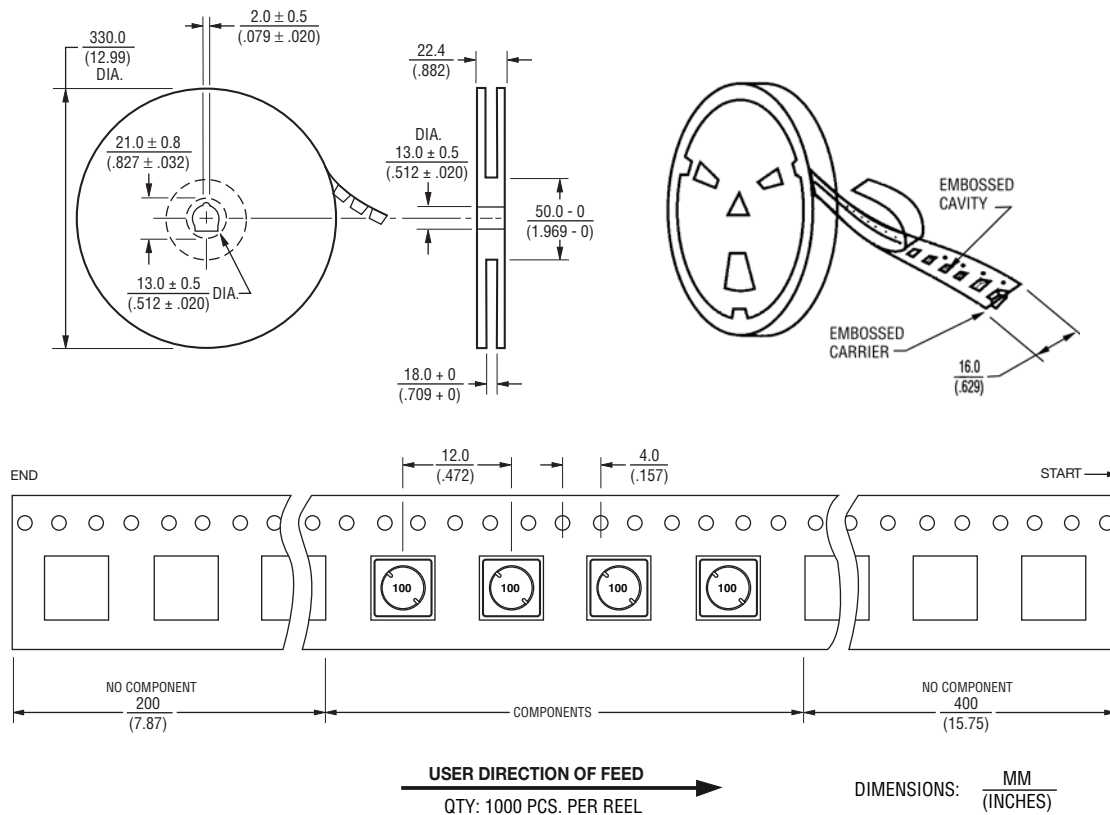
Inductance vs. Current



PM638S Series - Shielded SMD Power Inductor

BOURNS®

Packaging Specifications



REV. 03/11

Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Bourns:

[PM638S-820](#) [PM638S-8R7](#) [PM638S-270](#) [PM638S-100](#) [PM638S-5R0](#) [PM638S-150](#) [PM638S-330](#) [PM638S-7R4](#)
[PM638S-680](#) [PM638S-101](#) [PM638S-3R3](#) [PM638S-220](#) [PM638S-560](#) [PM638S-120](#) [PM638S-180](#) [PM638S-390](#)
[PM638S-6R2](#) [PM638S-470](#)