



Features

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

Applications

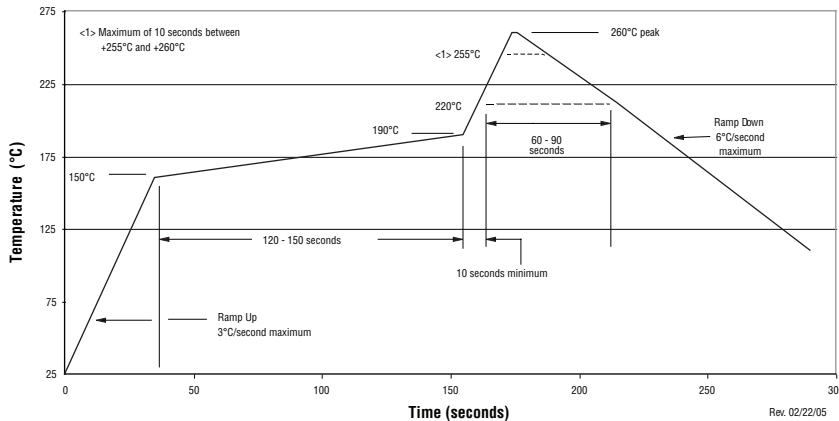
- Input/output of DC/DC converters
- Power supplies for:
 - Portable communication equipment
 - Camcorders
 - LCD TVs

PM638S Series - Shielded SMD Power Inductor

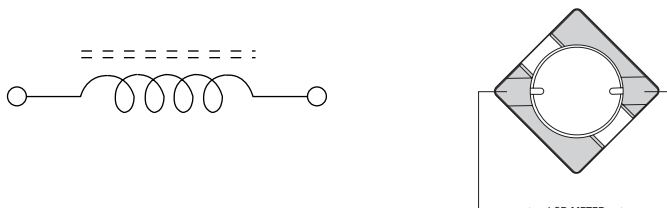
Electrical Specifications

Bourns Part No.	Inductance 100 kHz		Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	DCR Max. (mΩ)	Irms (A)	Isat (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



*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. The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

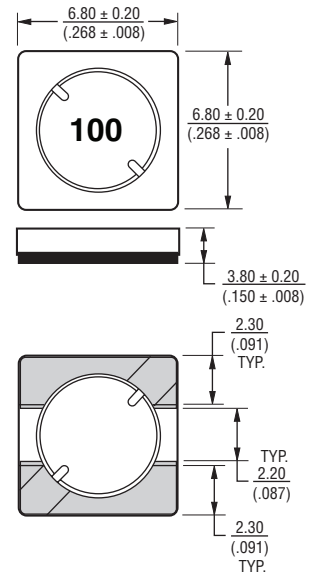
General Specifications

Test Voltage 0.1 V, 100 KHz
 Reflow Soldering 230 °C; 50 sec max.
 Operating Temp. -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature .. -40 °C to +125 °C
 Resistance to Soldering Heat
 260 °C for 10 sec.
 Moisture Sensitivity Level 2
 ESD Classification (HBM)..... N/A

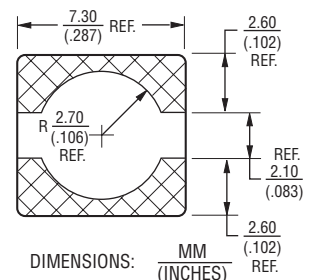
Materials

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

Product Dimensions



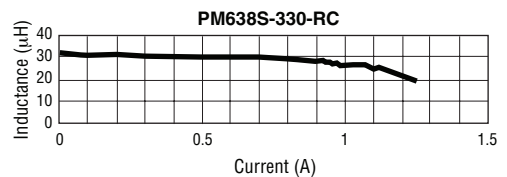
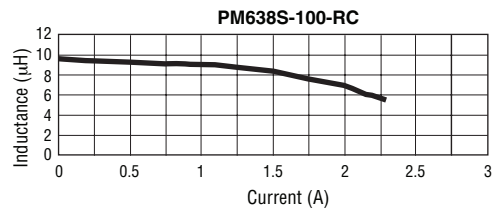
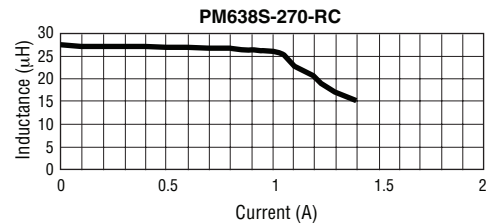
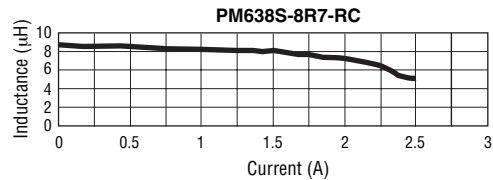
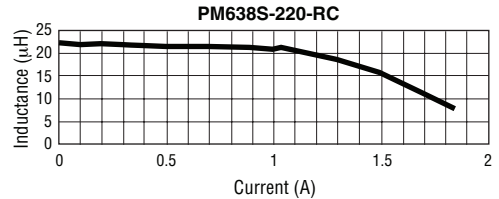
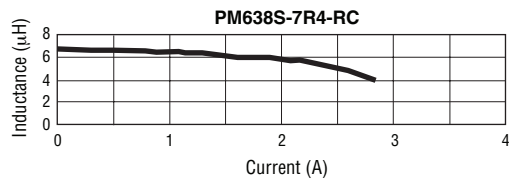
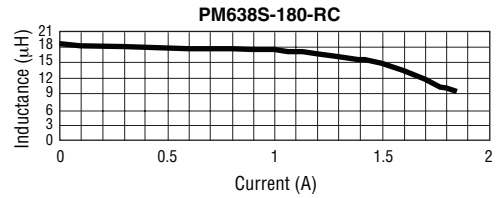
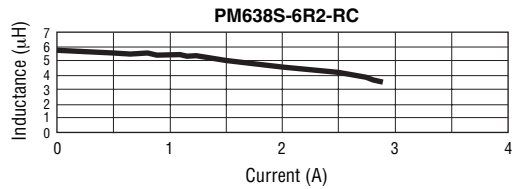
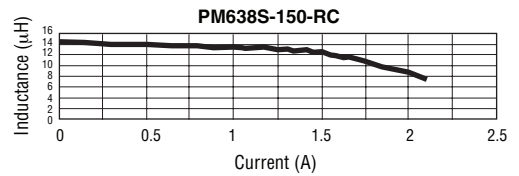
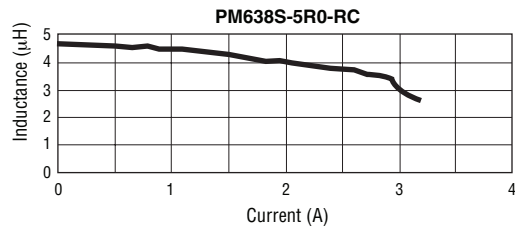
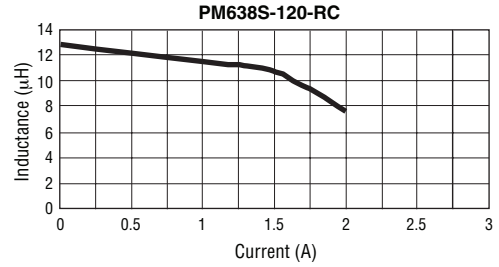
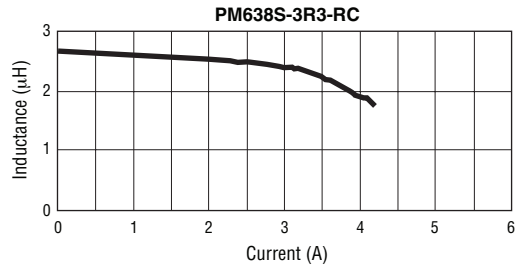
Recommended Layout



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Inductance vs. Current

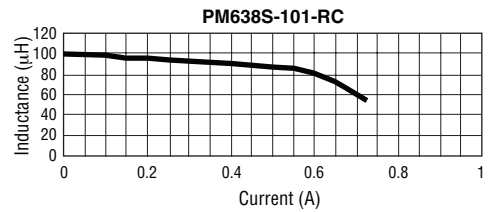
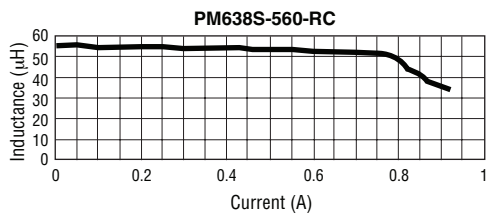
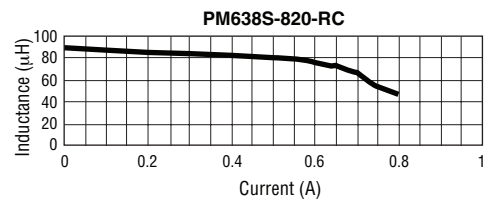
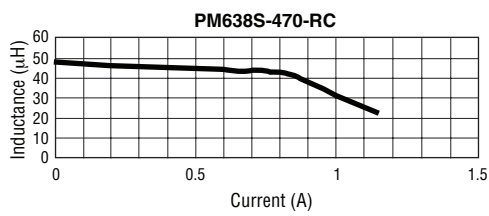
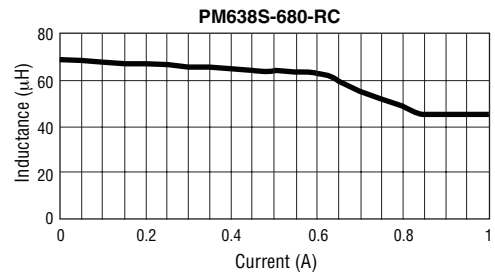
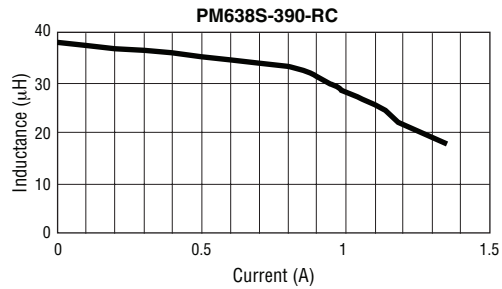


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Inductance vs. Current



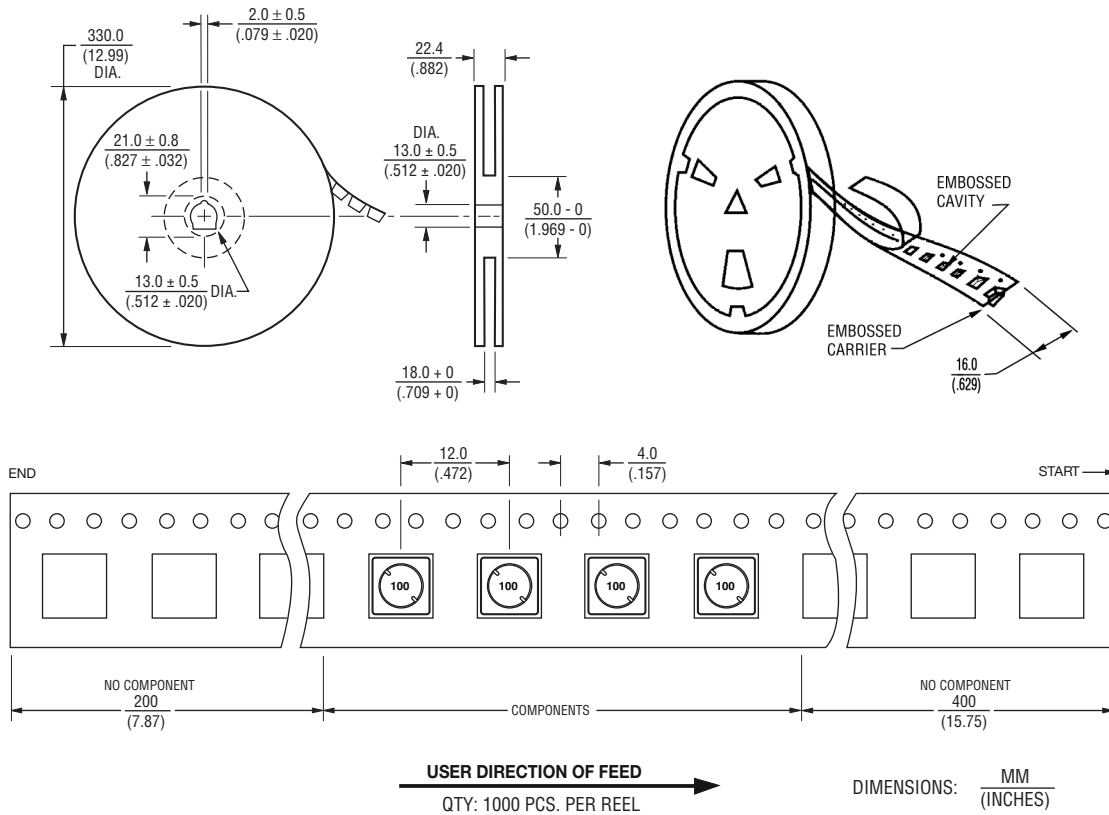
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Packaging Specifications



REV. 03/18

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