

Features

- Formerly J.W. Miller® model
- Available in E12 values
- Inductance as low as 1.2 µH
- Current rating to 6.6 amps
- RoHS compliant*

Applications

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

PM127SH Series - Shielded SMD Power Inductors

Electrical Specifications

Bourns Part No.	Inductance 100 kHz (µH)	Inductance 100 kHz Tol. %	Q Typ.	Test Frequency (MHz)	SRF Typ. (MHz)	RDC Max. (mΩ)	I rms Max. (A)	I sat Typ. (A)
PM127SH-1R2N-RC	1.2	-20 to +40	28	7.96	83	7.0	9.80	10.50
PM127SH-2R4N-RC	2.4	-20 to +40	20	7.96	45	10.0	9.20	10.50
PM127SH-3R5N-RC	3.5	-20 to +40	20	7.96	36	12.0	8.80	9.80
PM127SH-4R7N-RC	4.7	-20 to +40	22	7.96	30	15.5	8.20	8.80
PM127SH-6R1N-RC	6.1	-20 to +40	20	7.96	23	18.0	6.60	7.80
PM127SH-7R6N-RC	7.6	-20 to +40	15	7.96	21	20.0	5.90	6.50
PM127SH-100M-RC	10.0	± 20	24	2.52	17	19.5	6.00	6.60
PM127SH-120M-RC	12.0	± 20	26	2.52	15	28.0	5.60	6.30
PM127SH-150M-RC	15.0	± 20	26	2.52	13	28.5	5.20	5.00
PM127SH-180M-RC	18.0	± 20	24	2.52	12	35.0	4.80	4.60
PM127SH-220M-RC	22.0	± 20	20	2.52	11	38.6	4.30	4.10
PM127SH-270M-RC	27.0	± 20	26	2.52	10	52.0	3.90	3.70
PM127SH-330M-RC	33.0	± 20	28	2.52	9.5	57.0	3.50	3.30
PM127SH-390M-RC	39.0	± 20	24	2.52	8.5	70.0	3.20	3.10
PM127SH-470M-RC	47.0	± 20	24	2.52	7.5	80.0	2.90	2.80
PM127SH-560M-RC	56.0	± 20	24	2.52	7.0	100.0	2.60	2.50
PM127SH-680M-RC	68.0	± 20	20	2.52	6.5	120.0	2.40	2.30
PM127SH-820M-RC	82.0	± 20	20	0.796	5.0	130.0	2.30	2.20
PM127SH-101M-RC	100.0	± 20	18	0.796	4.5	150.0	2.10	2.00
PM127SH-121M-RC	120.0	± 20	16	0.796	4.3	200.0	1.95	1.95
PM127SH-151M-RC	150.0	± 20	24	0.796	4.1	270.0	1.85	1.90
PM127SH-181M-RC	180.0	± 20	24	0.796	4.0	300.0	1.75	1.88
PM127SH-221M-RC	220.0	± 20	24	0.796	3.4	400.0	1.60	1.70
PM127SH-271M-RC	270.0	± 20	20	0.796	3.1	450.0	1.20	1.60
PM127SH-331M-RC	330.0	± 20	18	0.796	2.9	600.0	1.10	1.40
PM127SH-391M-RC	390.0	± 20	20	0.796	2.7	680.0	1.60	1.40
PM127SH-471M-RC	470.0	± 20	20	0.796	2.2	880.0	0.90	1.25
PM127SH-561M-RC	560.0	± 20	20	0.796	2.0	960.0	0.80	1.15
PM127SH-681M-RC	680.0	± 20	26	0.796	1.7	1300.0	0.75	0.97
PM127SH-821M-RC	820.0	± 20	20	0.796	1.4	1500.0	0.70	0.94
PM127SH-102M-RC	1000.0	± 20	40	0.252	1.3	1700.0	0.68	0.80

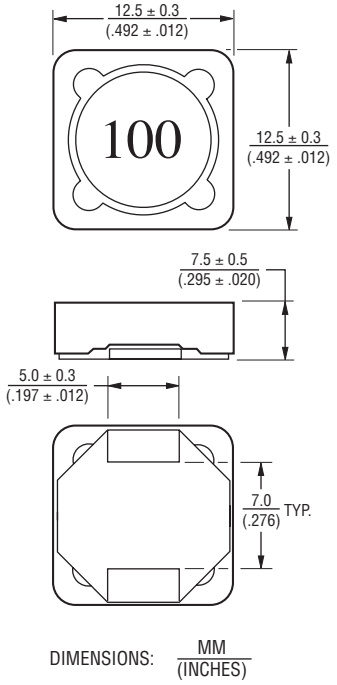
General Specifications

Test Voltage ..... 0.1 V
Operating Temperature
..... -40 °C to +125 °C
(Temperature rise included)
Storage Temperature
..... -40 °C to +125 °C
Moisture Sensitivity Level 1
ESD Classification (HBM) ..... N/A

Materials

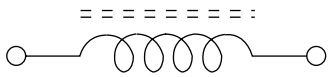
Core ..... Ferrite DR and RI
Wire ..... Enameled copper wire 130
Terminal Finish ..... Sn
Temperature Rise ..... 40 °C typ.
at rated Irms
Inductance drop ..... 25 % typ. at Isat
Packaging ..... 400 pcs. per reel

Product Dimensions

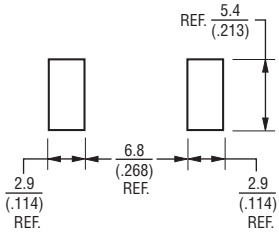


DIMENSIONS: MM (INCHES)

Electrical Schematic



Recommended Layout



Additional Information

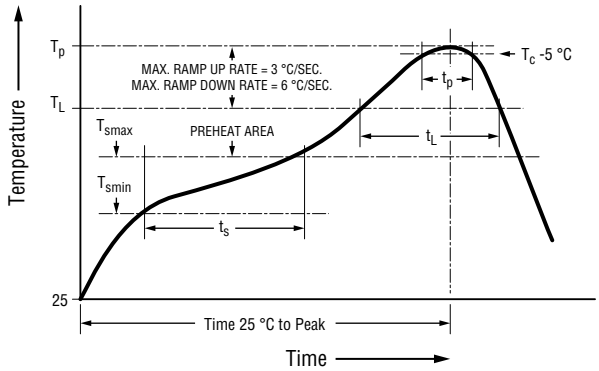
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CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant.
See www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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Soldering Profile

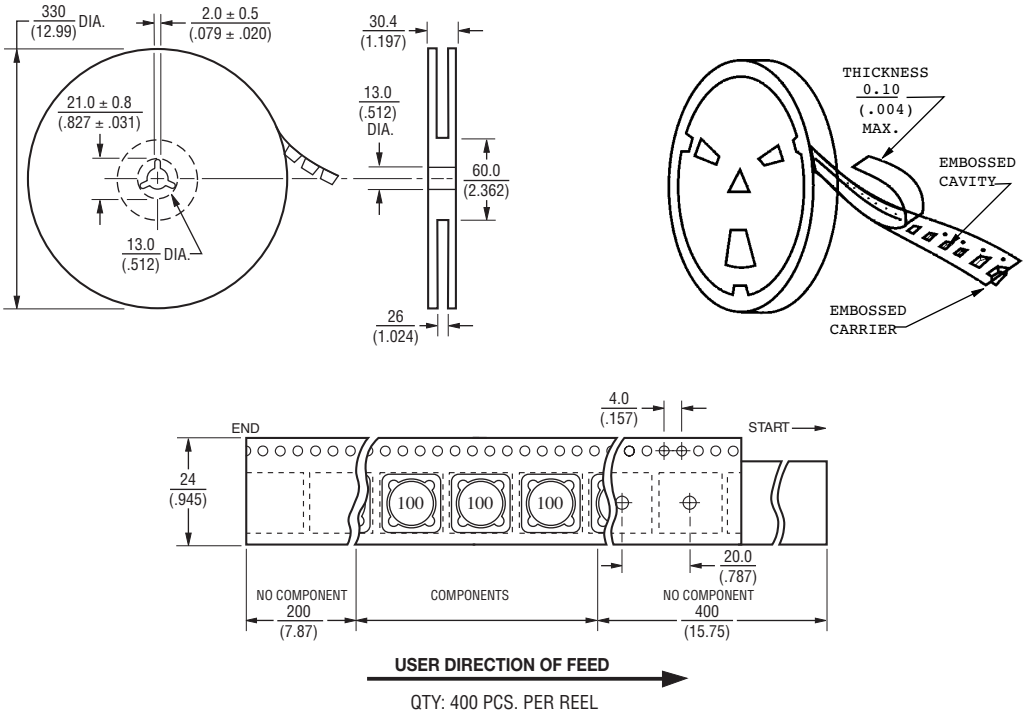


REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Classification temperature (T_c)	245 °C
Time (t_p) at T_c - 5 °C (T_p should be equal to or less than T_c)	< 30 seconds
Ramp-Down Rate (T_p to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

Refer to IPC/JEDEC J-STD-020E.

Packaging Specifications



QTY: 400 PCS. PER REEL

DIMENSIONS: MM (INCHES)

REV. 03/26

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.

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