

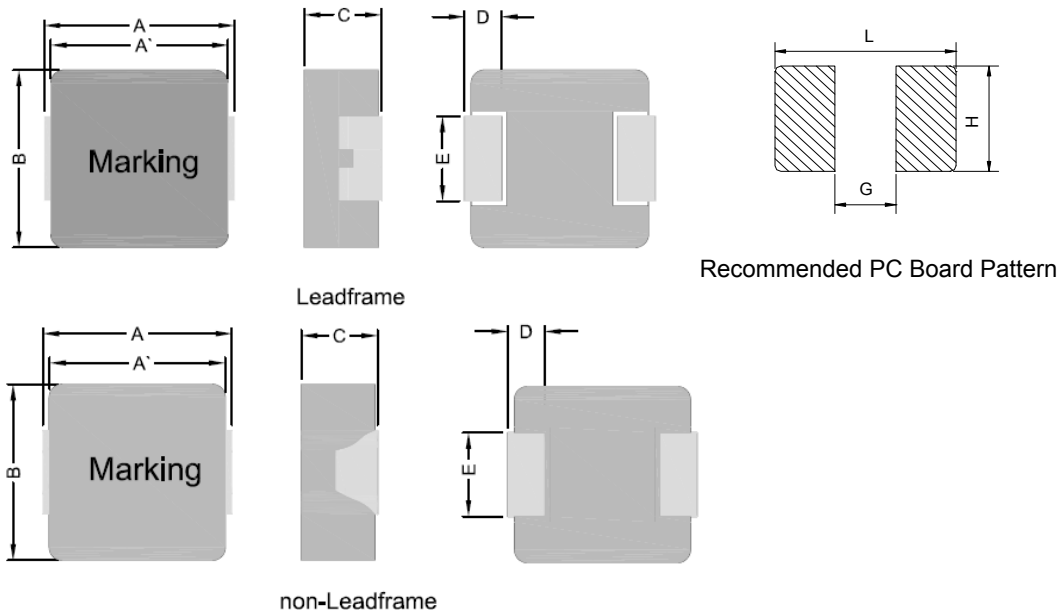
1. Part No. Expression:

PICQ1265HPR15MF

(a) (b) (c) (d) (e)(f)

- a) Series Code
- b) Dimension Code
- c) Type Code
- d) Inductance Code
- e) Tolerance Code
- f) RoHS Compliant

2. Configuration & Dimensions:



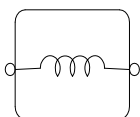
Note:

1. The above PCB layout is for reference only.
2. Solder paste thickness of 0.15mm and above is recommended.
3. Marking : Top row – Inductance code, Bottom row – Year/World week

Unit: mm

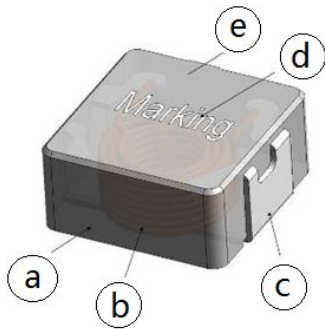
Series	Type	A	A'	B	C	D	E	L	G	H
PICQ1265	Leadframe	13.5±0.5	12.5±0.3	12.5±0.3	6.2±0.3	2.3±0.3	4.7±0.3	14.2 Ref.	8.0 Ref.	5.0 Ref.
	Non-Leadframe									

3. Schematic:



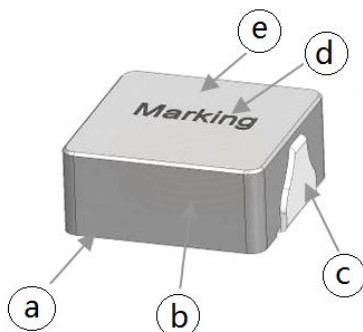
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4. Material List:



Lead Frame

- a) Core
- b) Wire
- c) Clip
- d) Ink
- e) Paint



Non- Lead Frame

- a) Core
- b) Wire
- c) Solder
- d) Ink
- e) Paint

5. General Specification:

- (a) Reliability test for this part meets AEC-Q200 standard
- (b) Operating Temp. : -55°C to +125°C(including self-temperature rise)
- (c) Storage Temp. : -55°C to +125°C (on board)
- (d) Humidity Range : 85 ± 3% RH
- (e) Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
- (f) Saturation Current (I_{sat1}) will cause L₀ to drop approximately 30%
- (g) Part Temperature (Ambient+Temp. Rise) : Should not exceed 125°C under worst case operating conditions.
- (h) Storage condition (component in its packaging)
 - i) Temperature: Less than 40°C
 - ii) Humidity : 60% RH

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6. Electrical Characteristics:

Part Number	Inductance L0 (uH) @ 0 A	Test Frequency, L	I rms (A) Typ.	I sat (A) Typ.	DCR(mΩ) Typ.@25°C	DCR(mΩ) Max.@25°C	Type
PICQ1265HPR15MF	0.15	100KHz/1.0V	55.0	118	0.49	0.60	Non-Leadframe
PICQ1265HPR22MF	0.22	100KHz/1.0V	53.0	112	0.47	0.60	Non-Leadframe
PICQ1265HPR30MF	0.30	100KHz/1.0V	48.0	72.0	0.6	0.72	Non-Leadframe
PICQ1265HPR33MF	0.33	100KHz/1.0V	46.0	68.0	0.65	0.8	Non-Leadframe
PICQ1265HPR36MF	0.36	100KHz/1.0V	45.0	66.0	0.7	0.9	Non-Leadframe
PICQ1265HPR40MF	0.40	100KHz/1.0V	44.0	64.0	0.7	1.0	Non-Leadframe
PICQ1265HPR45MF	0.45	100KHz/1.0V	42.0	63.0	0.9	1.2	Non-Leadframe
PICQ1265HPR47MF	0.47	100KHz/1.0V	41.0	63.0	0.9	1.2	Non-Leadframe
PICQ1265HPR50MF	0.50	100KHz/1.0V	40.0	60.0	0.92	1.25	Non-Leadframe
PICQ1265HPR56MF	0.56	100KHz/1.0V	37.0	58.0	1.05	1.2	Non-Leadframe
PICQ1265HPR68MF	0.68	100KHz/1.0V	35.0	55.0	1.25	1.5	Non-Leadframe
PICQ1265HPR82MF	0.82	100KHz/1.0V	33.0	50.0	1.5	1.9	Non-Leadframe
PICQ1265HP1R0MF	1.00	100KHz/1.0V	30.0	48.0	1.7	2.3	Non-Leadframe
PICQ1265HP1R5MF	1.50	100KHz/1.0V	27.0	45.0	2.5	3.0	Non-Leadframe
PICQ1265HP1R8MF	1.80	100KHz/1.0V	24.0	40.0	3.6	4.0	Leadframe
PICQ1265HP2R2MF	2.20	100KHz/1.0V	22.0	37.0	3.8	4.2	Leadframe
PICQ1265HP3R3MF	3.30	100KHz/1.0V	18.0	30.0	5.7	6.8	Leadframe
PICQ1265HP4R7MF	4.70	100KHz/1.0V	13.5	28.0	7.0	8.4	Leadframe
PICQ1265HP5R6MF	5.60	100KHz/1.0V	12.5	23.0	8.5	10.0	Leadframe
PICQ1265HP6R8MF	6.80	100KHz/1.0V	11.5	18.0	9.5	11.5	Leadframe
PICQ1265HP7R0MF	7.00	100KHz/1.0V	11.2	17.7	10.0	12.3	Leadframe
PICQ1265HP8R2MF	8.20	100KHz/1.0V	10.5	16.0	12.0	15.5	Leadframe
PICQ1265HP100MF	10.0	100KHz/1.0V	10.0	15.5	13.2	16.5	Leadframe
PICQ1265HP120MF	12.0	100KHz/1.0V	9.5	14.0	16.0	20.0	Leadframe
PICQ1265HP130MF	13.0	100KHz/1.0V	9.0	13.0	21.0	24.0	Leadframe
PICQ1265HP150MF	15.0	100KHz/1.0V	9.0	12.5	23.2	28.0	Leadframe
PICQ1265HP220MF	22.0	100KHz/1.0V	9.0	12.0	32.5	37.0	Leadframe
PICQ1265HP330MF	33.0	100KHz/1.0V	8.0	11.0	48.0	58.0	Leadframe
PICQ1265HP470MF	47.0	100KHz/1.0V	6.5	9.5	76.0	90.0	Leadframe

*Tolerance code : Y = ±30%; M = ±20%

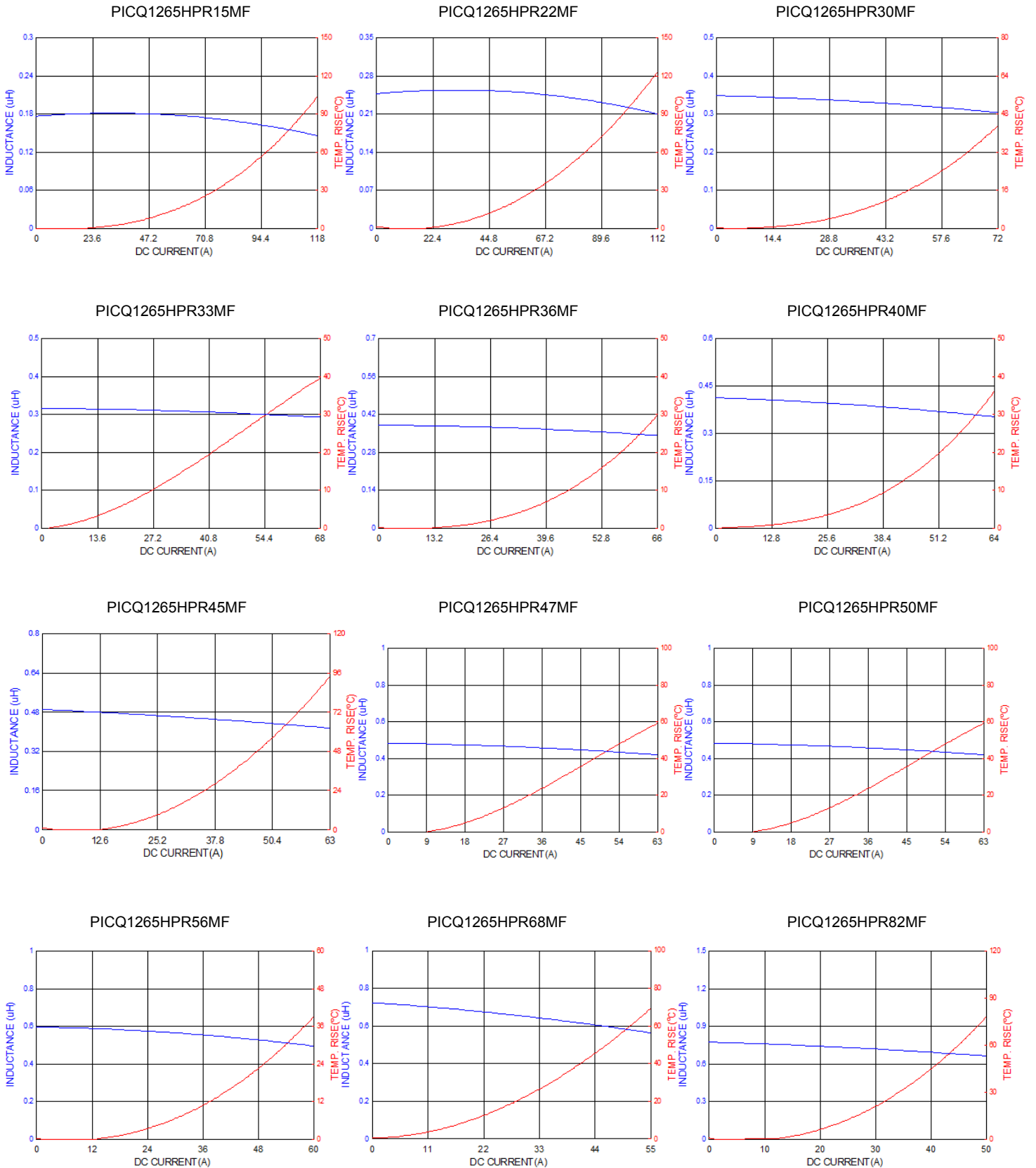
Notes:

1) Isat Typ. and Irms Typ. value is derived based from accounting the upper limit tolerance into the inductance value.

NOTE: Specifications subject to change without notice. Please check our website for latest information.

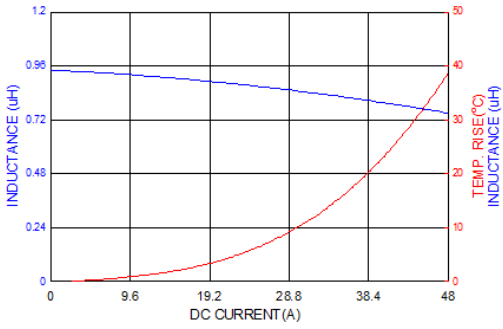


7. Characteristics Curves:

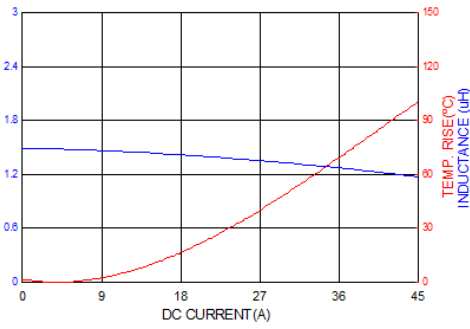


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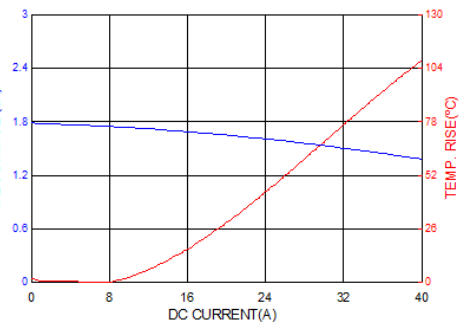
PICQ1265HP1R0MF



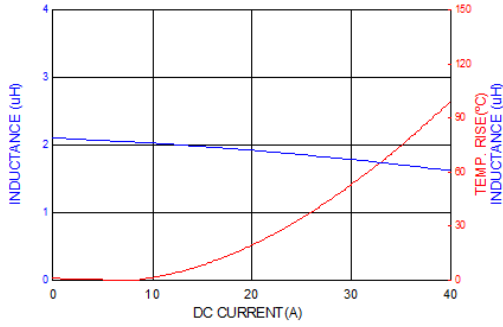
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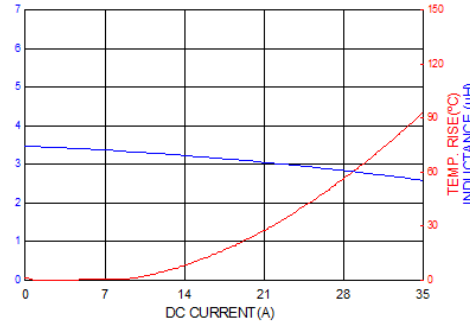
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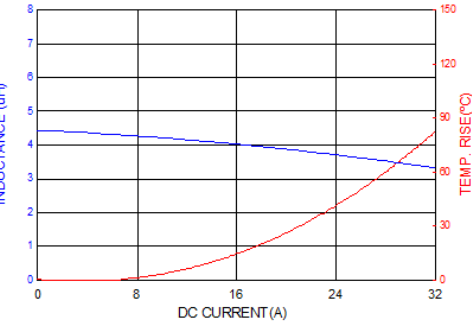
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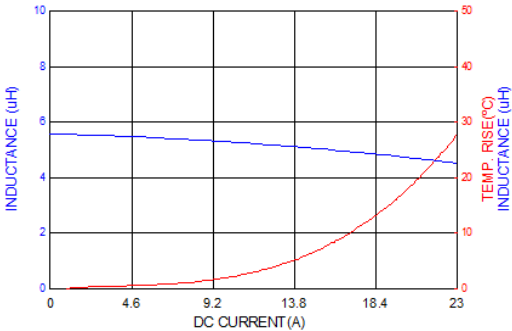
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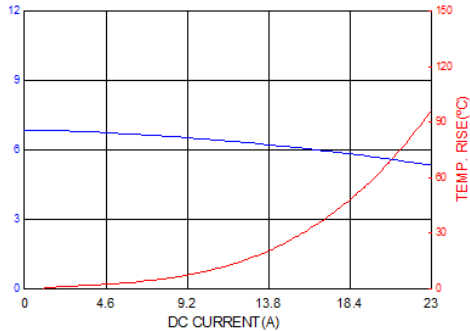
PICQ1265HP4R7MF



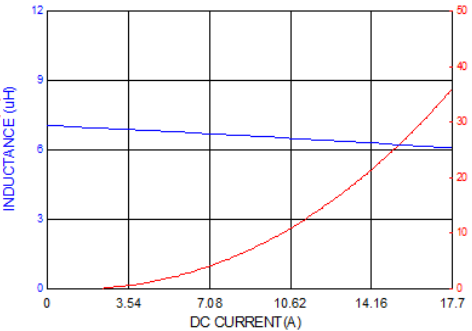
PICQ1265HP5R6MF



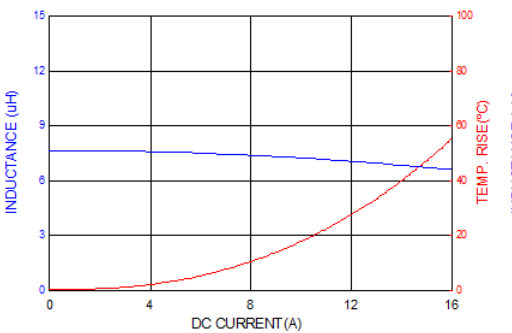
PICQ1265HP6R8MF



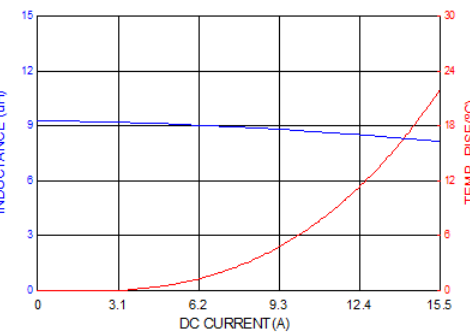
PICQ1265HP7R0MF



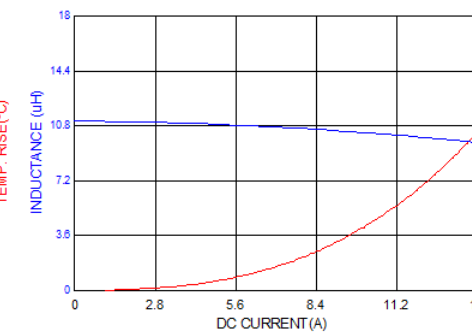
PICQ1265HP8R2MF



PICQ1265HP100MF



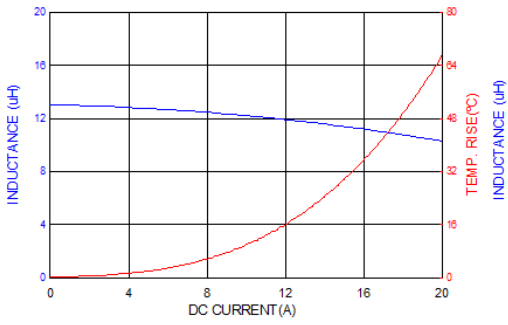
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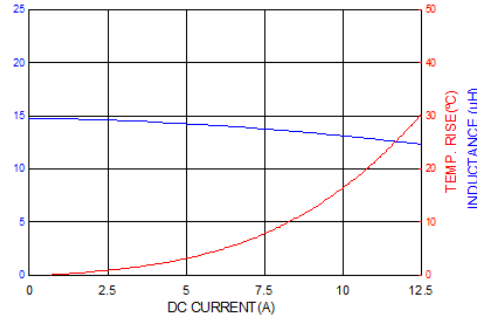
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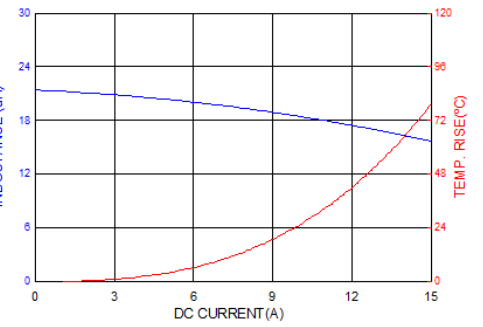
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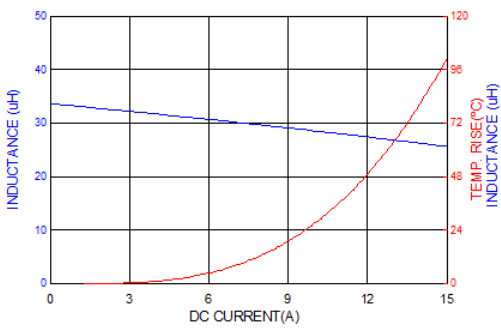
PICQ1265HP150MF



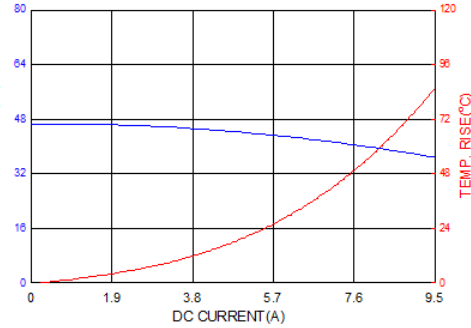
PICQ1265HP220MF



PICQ1265HP330MF



PICQ1265HP470MF



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8. Soldering:

Mildly activated rosin fluxes are preferred. The minimum amount of solder can lead to damage from the stresses caused by the difference in coefficients of expansion between solder, chip and substrate. Our terminations are suitable for all re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air.

8-1 Solder Re-flow:

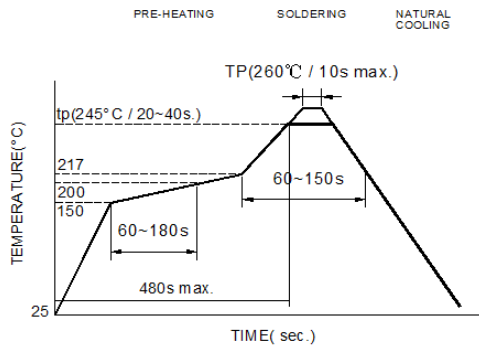
Recommended temperature profiles for re-flow soldering in Figure 1.

8-2 Soldering Iron (Figure 2):

Products attachment with soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended.

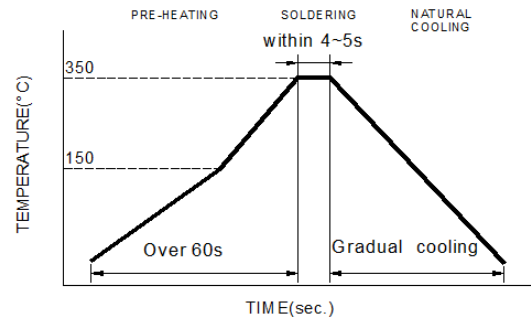
Note :

- a) Preheat circuit and products to 150°C.
- b) 355°C tip temperature (Max.)
- c) Never contact the ceramic with the iron tip
- d) 1.0mm tip diameter (Max.)
- e) Use a 20 watt soldering iron with tip diameter of 1.0mm
- f) Limit soldering time to 4~5 secs.



Reflow times: 3 times max.

Fig.1



Iron Soldering times: 1 times max.

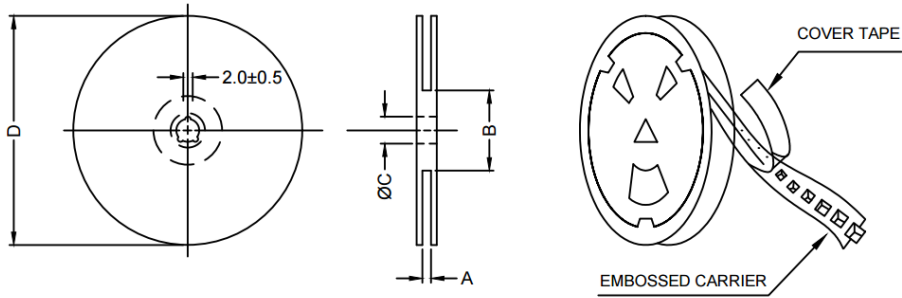
Fig.2

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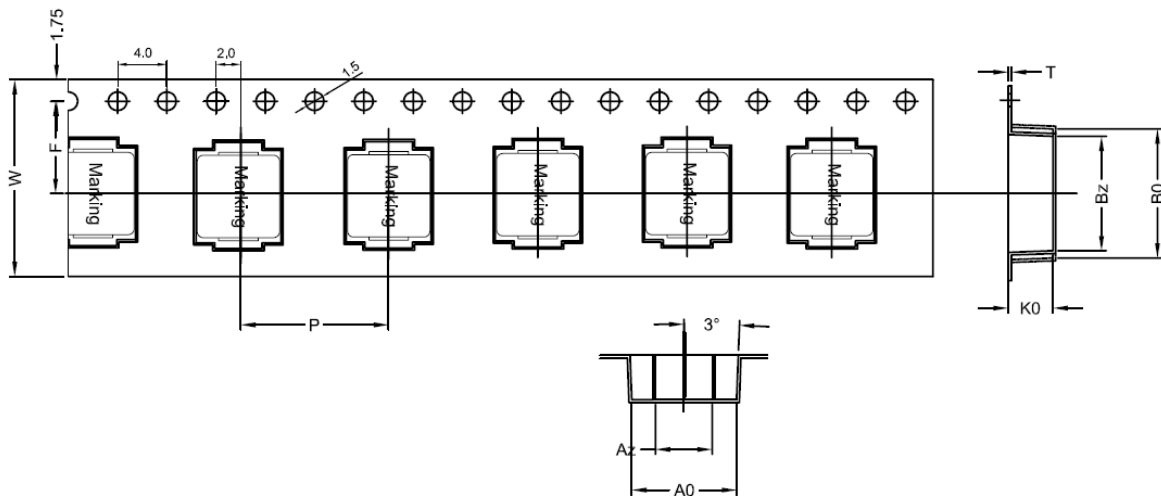
9. Packaging Information:

9-1 Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
13"x24mm	24.4+2/-0	100±2	13.0+0.5/-0.2	330

9-2 Tape Dimension



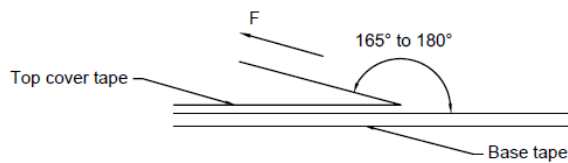
Series	Size	Bo(mm)	Bz(mm)	Ao(mm)	Az(mm)	Ko(mm)	P(mm)	W(mm)	F(mm)	t(mm)
PICQ	1265	14.1±0.1	13.0±0.1	12.9±0.1	7.0±0.1	7.0±0.1	16.0±0.1	24±0.3	11.5±0.1	0.35±0.05

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9-3 Packaging Quantity

PICQ	1265
Chip / Reel	500
Inner box	1,000
Carton	4,000

9-4 Tearing Off Force



The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice:

1. Storage Conditions:

To maintain the solderability of terminal electrodes:

- a) Recommended products should be used within 12 months from the time of delivery.
- b) The packaging material should be kept where no chlorine or sulfur exists in the air.

2. Transportation:

- a) Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- b) Vacuum pick up is strongly recommended for individual components.
- c) Bulk handling should ensure that abrasion and mechanical shock are minimized.

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