PRODUCT IDENTIFICATION

JRPI 0603 P – 100 M

- JRPI: Type
- 0603: Size
- P: Material
- 100: Inductance
- M: Tol.

■ FEATURES

1. Shielded construction.
2. Capable of corresponding high frequency .
3. Low loss realized with low DCR.
4. High performance (Isat) realized by metal dust core.
5. Ultra low buzz noise, due to composite construction.
6. 100% Lead(Pb)-Free and RoHS compliant.
7. Operating temperature -40~+125℃
   (Including self - temperature rise)

■ Marking and Date code:

Marking ex: 10 (μH) → 100

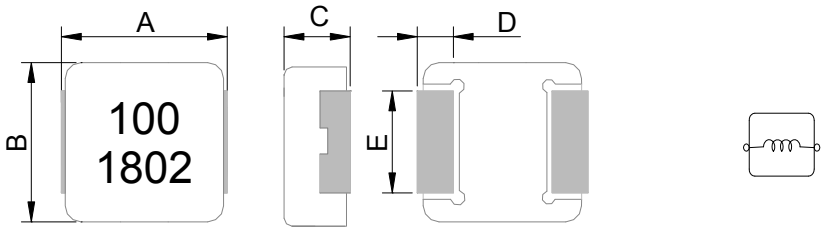
Date code

18 02 →year and weekly

■ APPLICATIONS

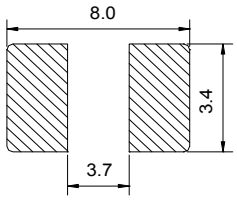
1. DC/DC converters in distributed power systems.
2. DC/DC converter for Field Programmable Gate Array(FPGA).
3. Battery powered devices.
4. Thin type on-board power supply module for exchanger.
5. VRM for server.
6. High current, low profile POL converters.
7. PDA/notebook/desktop/server and battery powered devices.

■ DIMENSIONS (mm)



印字:黑色100及D/C 1802 (18年,02週期)(依實際生產日期而定)

Recommend PC Board Pattern



Note:
1. PCB layout is referred to standard IPC-7351B
2. The above PCB layout reference only.
3. Recommend solder paste thickness at 0.15mm and above.

Part No.	Size (mm)				
	A	B	C	D	E
JRPI 0603P	7.1 ± 0.3	6.6 ± 0.2	2.8 ± 0.2	1.6 ± 0.3	3.0 ± 0.2

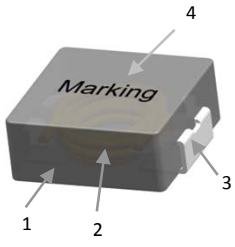
SERIES LIST

No.	Part No.	L (μH)	RDC (mΩ) Typ.	RDC (mΩ) Max.	Isat (A) Typ	Isat (A) Max	Irms (A) Typ	Irms (A) Max
1	JRPI 0603P-R15N	0.15±30%	1.7	2.1	40.0	36.0	30.0	25.0
2	JRPI 0603P-R22M	0.22±20%	2.0	2.5	34.0	32.0	23.0	21.0
3	JRPI 0603P-R33M	0.33±20%	2.8	3.4	25.0	22.0	21.0	20.0
4	JRPI 0603P-R36M	0.36±20%	3.3	3.9	24.0	21.0	20.0	18.0
5	JRPI 0603P-R47M	0.47±20%	3.4	4.0	20.0	18.0	18.0	16.0
6	JRPI 0603P-R56M	0.56±20%	3.9	4.5	18.0	16.0	16.5	15.0
7	JRPI 0603P-R68M	0.68±20%	4.7	5.3	17.0	15.0	16.0	14.5
8	JRPI 0603P-R82M	0.82±20%	5.4	6.0	16.0	14.0	14.0	13.0
9	JRPI 0603P-1R0M	1.0±20%	6.7	7.4	15.0	13.5	12.0	11.0
10	JRPI 0603P-1R2M	1.2±20%	7.7	9.5	14.0	12.5	10.0	9.5
11	JRPI 0603P-1R5M	1.5±20%	10.2	12.1	14.0	12.0	10.0	9.0
12	JRPI 0603P-2R2M	2.2±20%	13.5	15	10.0	9.0	8.0	7.5
13	JRPI 0603P-3R3M	3.3±20%	19	22	9.5	8.5	6.5	6.0
14	JRPI 0603P-4R7M	4.7±20%	28	33	6.5	5.5	5.5	5.0
15	JRPI 0603P-5R6M	5.6±20%	39	42	6.0	5.2	5.5	5.0
16	JRPI 0603P-6R8M	6.8±20%	43	50	6.0	5.0	4.5	4.2
17	JRPI 0603P-8R2M	8.2±20%	54	60	6.0	4.7	4.5	4.0
18	JRPI 0603P-100M	10±20%	62	68	5.5	4.5	4.0	3.5
19	JRPI 0603P-150M	15±20%	110	140	4.5	4.0	3.0	2.5
20	JRPI 0603P-220M	22±20%	150	190	3.0	2.5	2.5	2.0
21	JRPI 0603P-330M	33±20%	215	258	2.5	2.0	2.1	1.8

Note:

1. Test Frequency: 100KHz /1V
2. All test data referenced to 25℃ ambient
3. Saturation Current (Isat) will cause L0 to drop approximately 30%.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40℃
5. The part temperature (ambient + temp rise) should not exceed 125℃under worst case operating conditions. Circuit design,component,PCB trace size and thickness,airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
6. Irms Testing : Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
7. Rated DC Current : The less value whith is Irms or Isat.

Materials

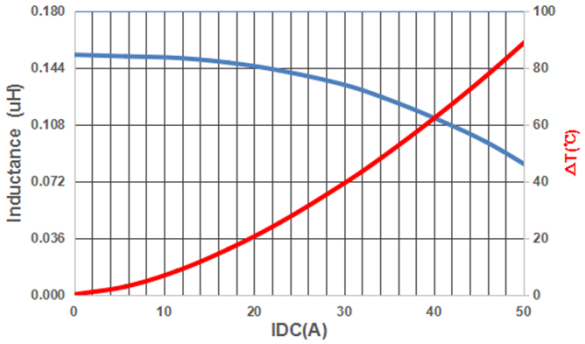


leadframe

NO	Items	Materials
1	Core	Alloy Powder
2	Wire	Polyester Wire or equivalent
3	Clip	100% Pb free solder(Ni+Sn---Plating)
4	Ink	Halogen-free ketone

TYPICAL PERFORMANCE CURVES

JRPI 0603P-R15



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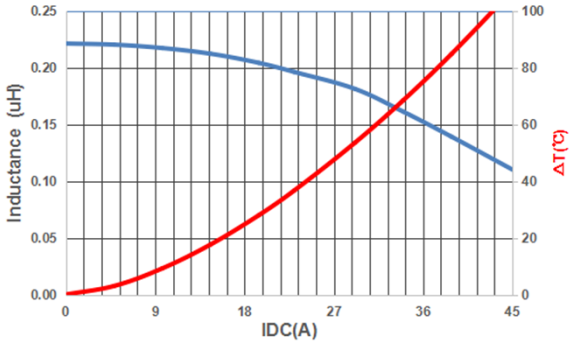

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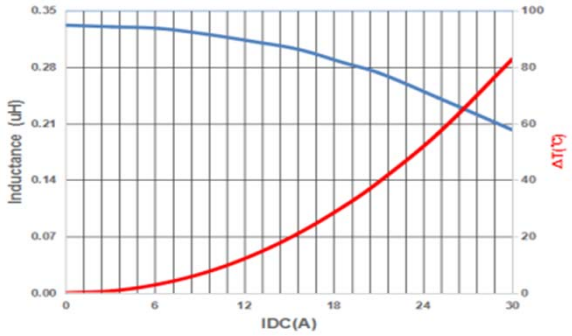

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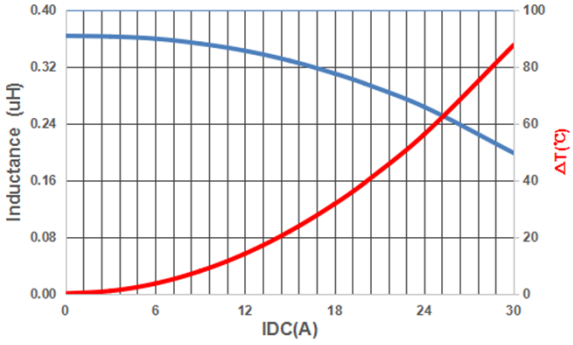

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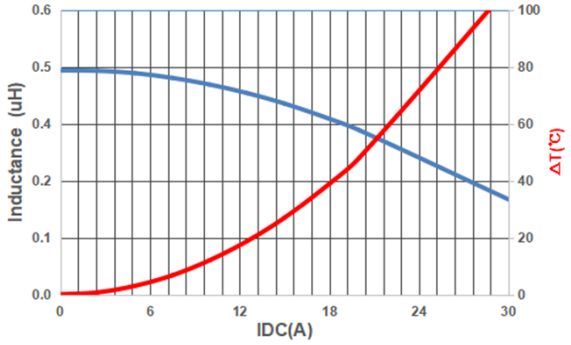

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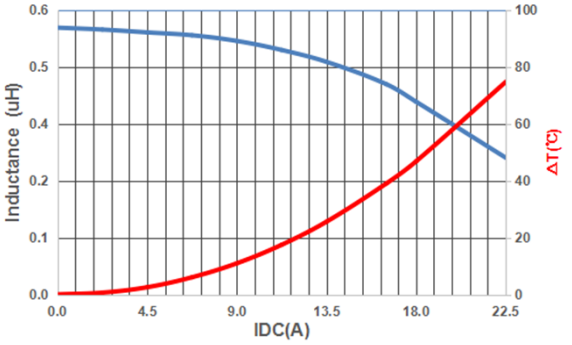

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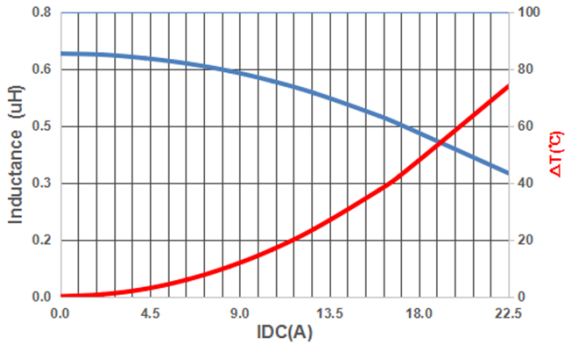

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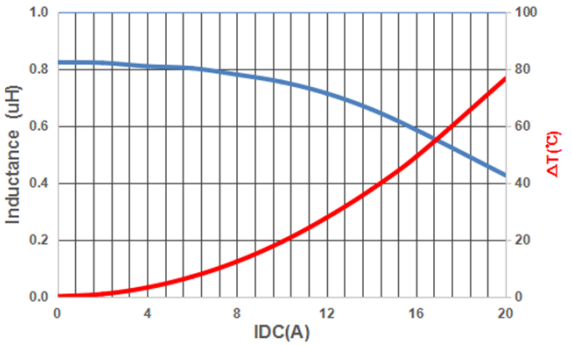

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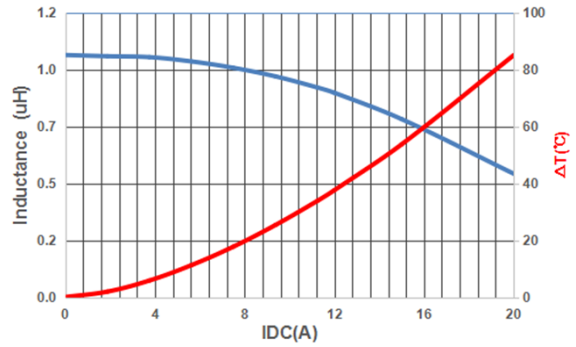

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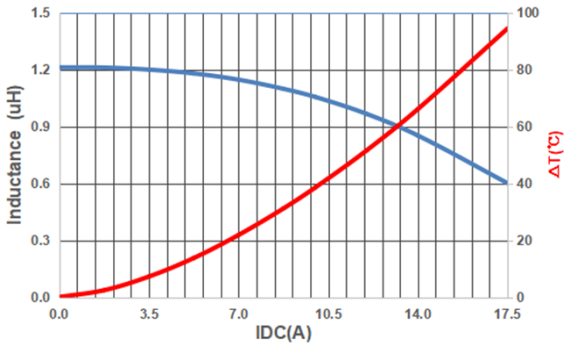

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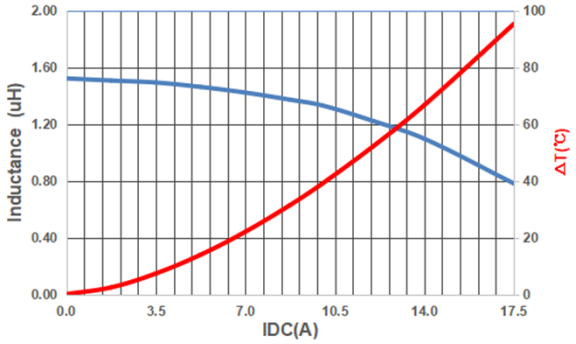

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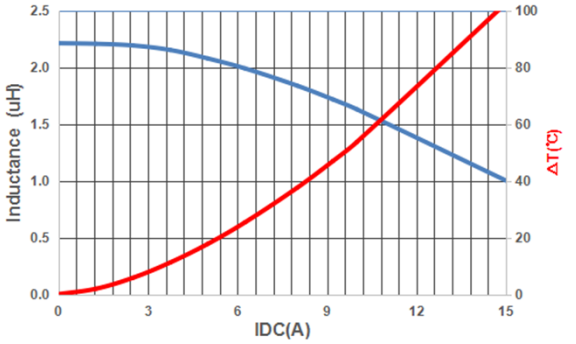

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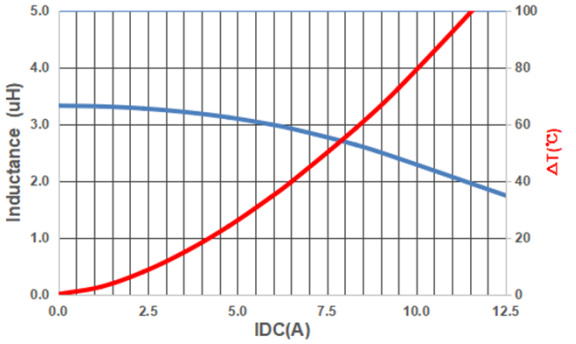

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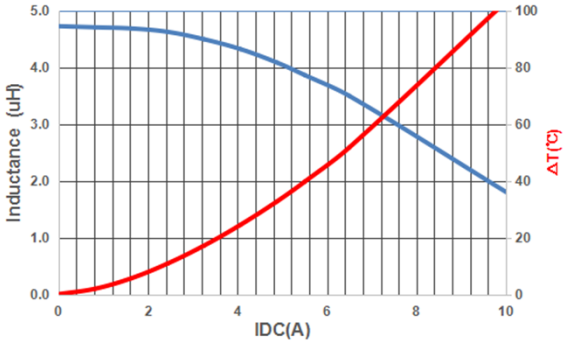

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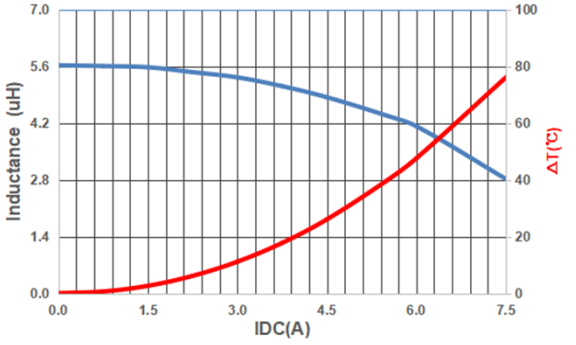

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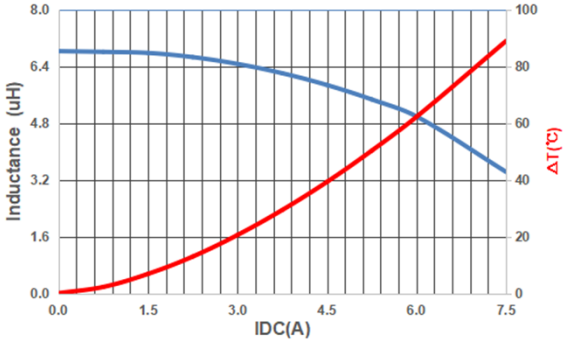

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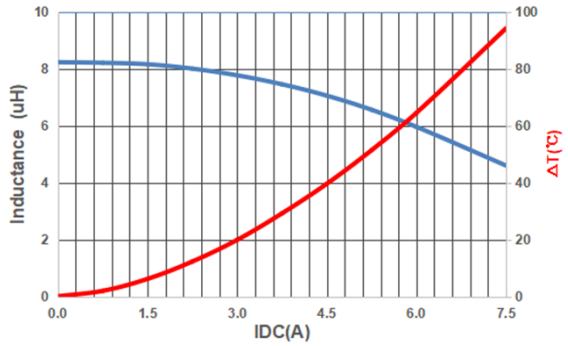
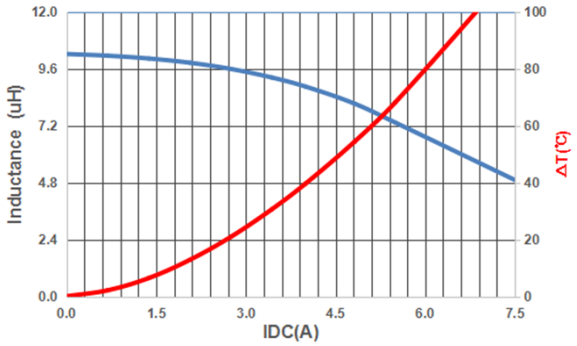
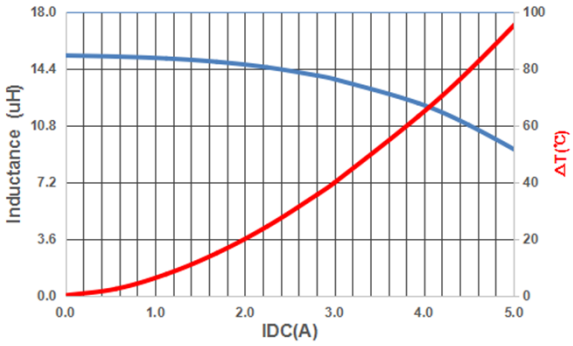


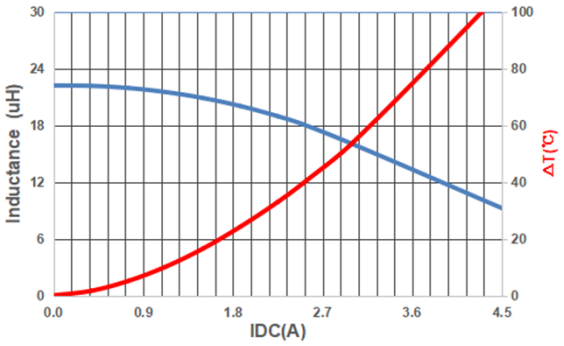
JRPI 0603P-100



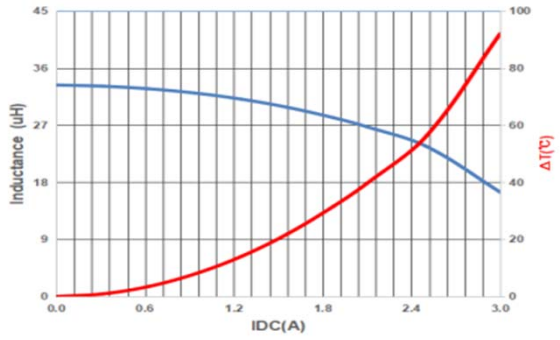
JRPI 0603P-150



JRPI 0603P-220

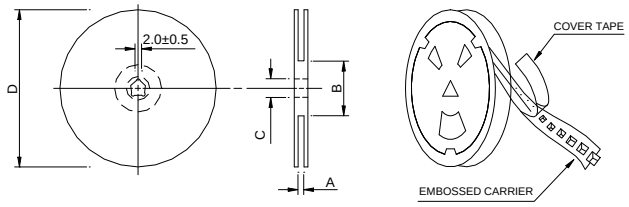


JRPI 0603P-330



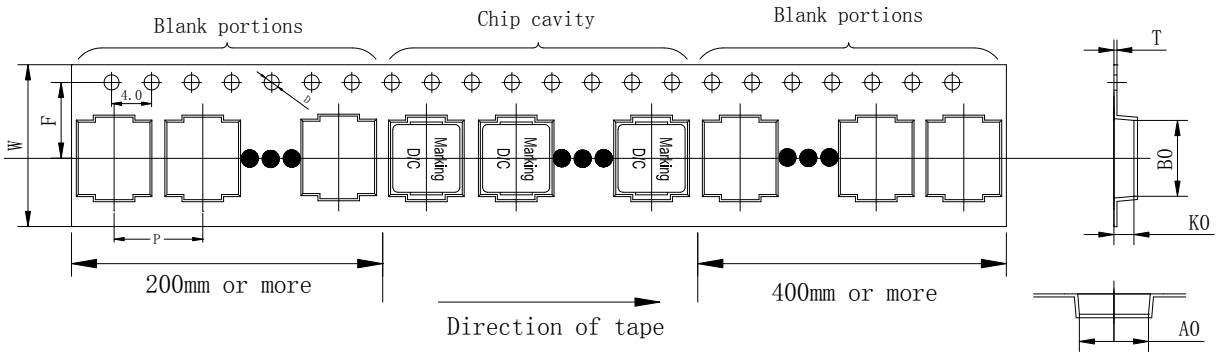
Packaging Information

• Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
13"x16mm	16.4+2/-0	100±2	13+0.5/-0.2	330

• Tape Dimension

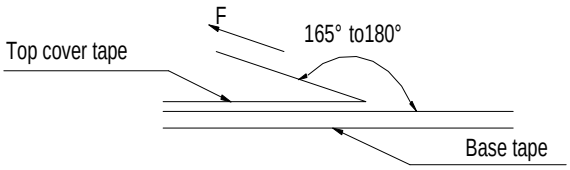


Ao(mm)	Bo(mm)	Ko(mm)	P(mm)	W(mm)	F(mm)	t(mm)	D(mm)
7.0±0.1	7.7±0.1	3.3±0.1	12.0±0.1	16±0.3	7.5±0.1	0.35±0.05	1.5±0.1

• Packaging Quantity

Size	Reel	Inner box	Carton
JRPI 0603P	1000	2000	8000

• Tearing Off Force



The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions (referenced ANSI/EIA-481-D-2008 of 4.11 standard)

Tearing Speed mm	Room Temp. (℃)	Room Humidity (%)	Room atm (hPa)
300±10%	5~35	45~85	860~1060

■ Application Notice

- Storage Conditions(component level)

  To maintain the solderability of terminal electrodes:

  1. Products meet IPC/JEDEC J-STD-020E standard-MSL, level 1.
  2. Temperature and humidity conditions: Less than 40℃ and 60% RH.
  3. Recommended products should be used within 12 months form the time of delivery.
  4. The packaging material should be kept where no chlorine or sulfur exists in the air.

- Transportation

  1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
  2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
  3. Bulk handling should ensure that abrasion and mechanical shock are minimized.