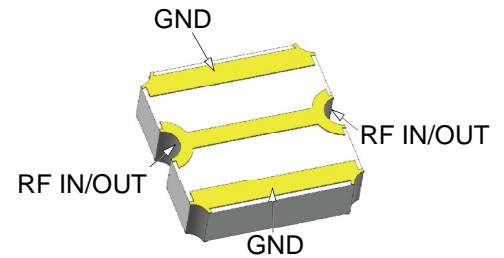


Description

The CR01 is a low profile crossover to intersect an RF and DC circuit trace in an easy to use surface mount package designed for frequencies up to 3.6 GHz. The CR01 is ideal for any application where an RF circuit must intersect with a DC circuit without resorting to a multilayer PCB.

Parts have been subjected to rigorous qualification testing and units are 100% tested. They are manufactured using materials with x and y thermal expansion coefficients compatible with common substrates such as FR4, G-10, RF-35, RO4003 and polyamide.



Features:

- DC – 3.6 GHz
- RF – RF Crossover
- Low Loss
- DC Isolation
- Surface Mountable
- Tape And Reel
- Convenient Package
- CTE compatible with FR4, G-10, RF-35, RO4350B and polyimide
- 100% Tested
- Lead Free

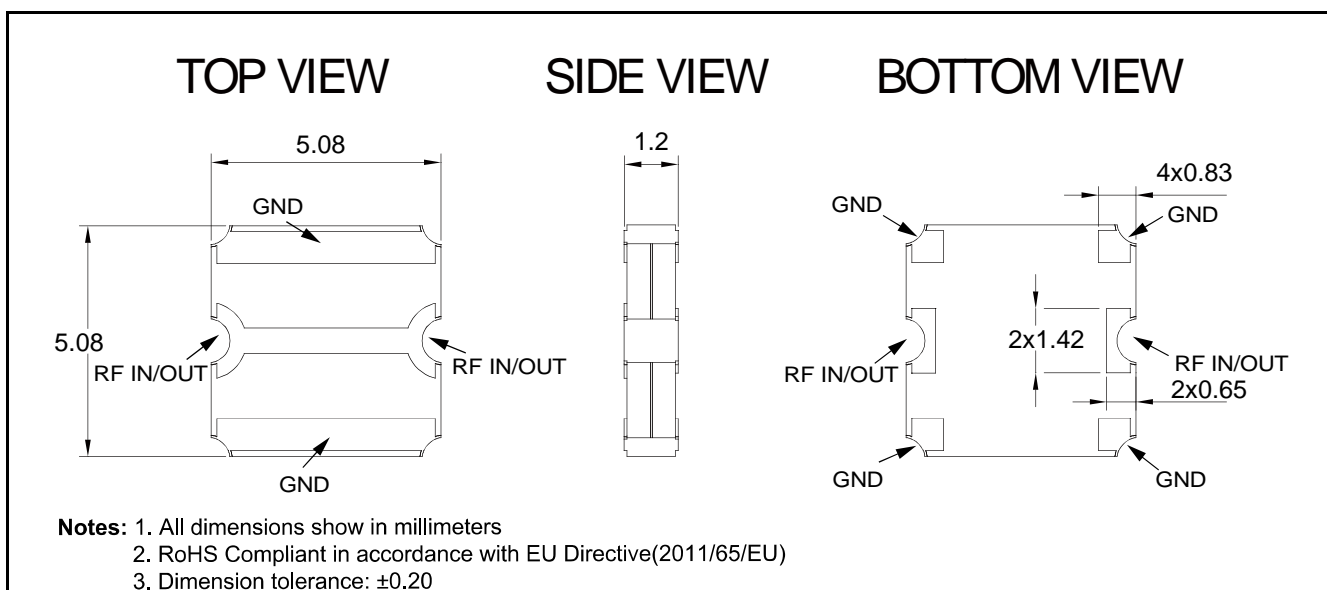
Electrical Specifications

Frequency	Port Impedance	Return Loss
<i>GHz</i>	<i>Ohms</i>	<i>dB Min</i>
DC – 2.0	50	20
2.0 – 3.6	50	15
Insertion Loss	Power	Operating Temp.
<i>dB Max</i>	<i>Avg. CW Watts at 85 °C</i>	<i>°C</i>
0.10	30	-55 to +125
0.10	20	-55 to +125

Notes:

1. All the above data are based on specified demo board.
2. Insertion loss: Thru board loss has been removed.

Mechanical Outline

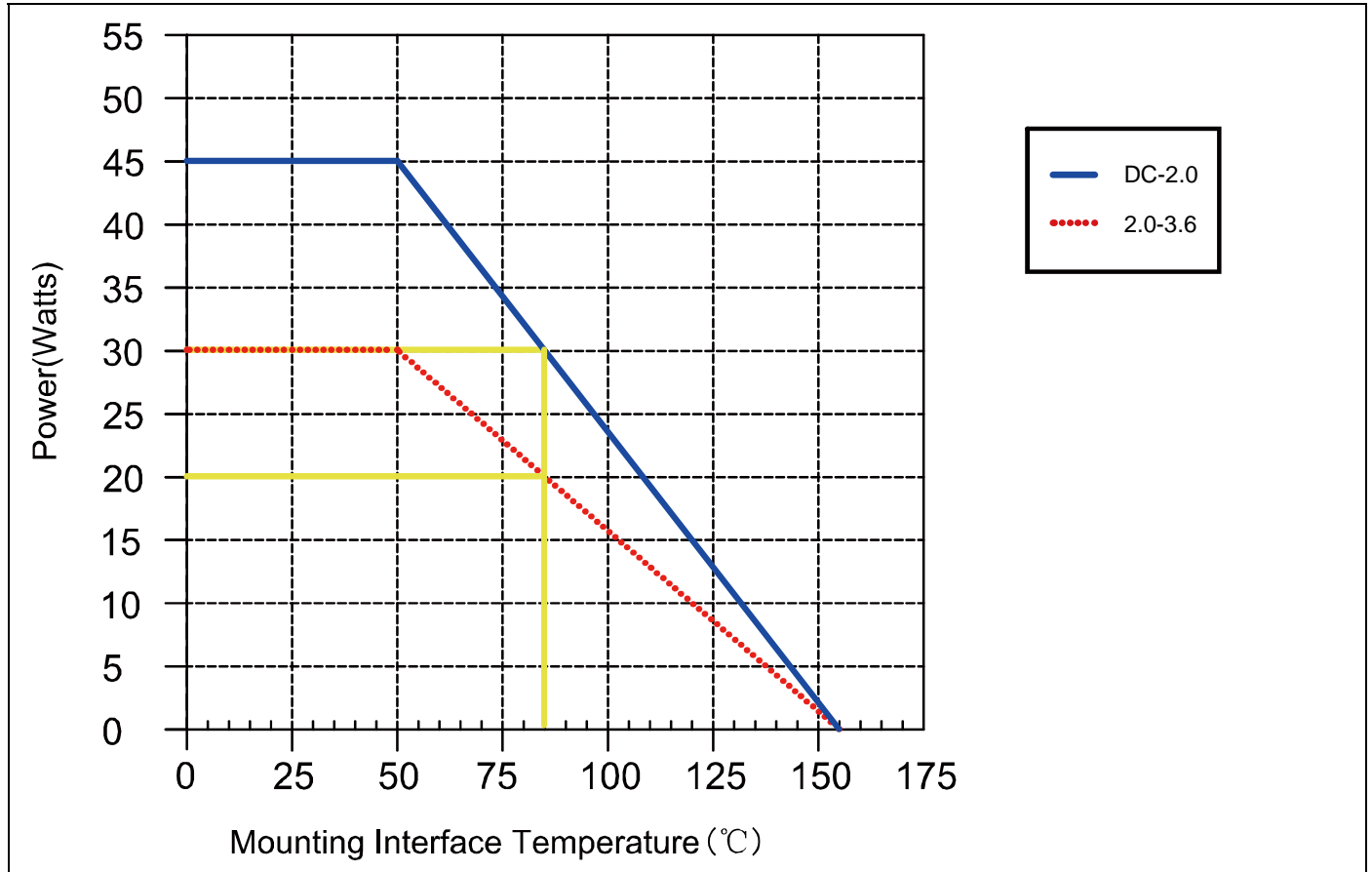


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Power Derating Curves



Power Derating:

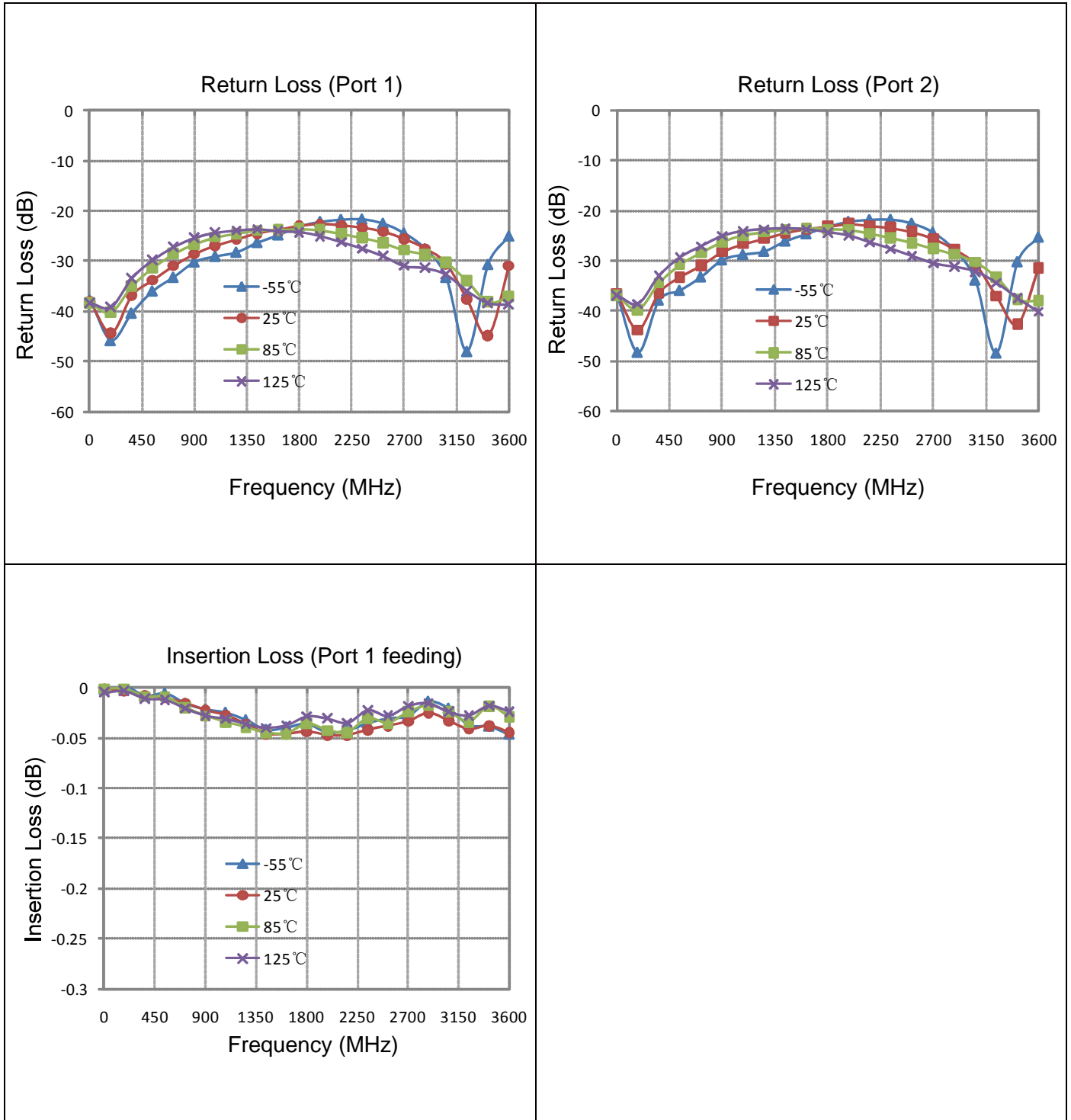
As the mounting interface temperature approaches the maximum continuous operating temperature, the power handling decreases to zero.

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Typical Performance (-55°C, 25°C, 85°C, 125°C:DC-3600 MHz)

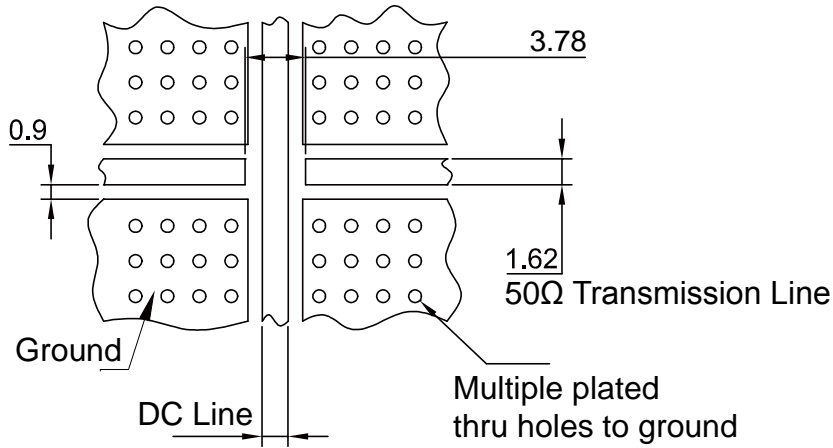


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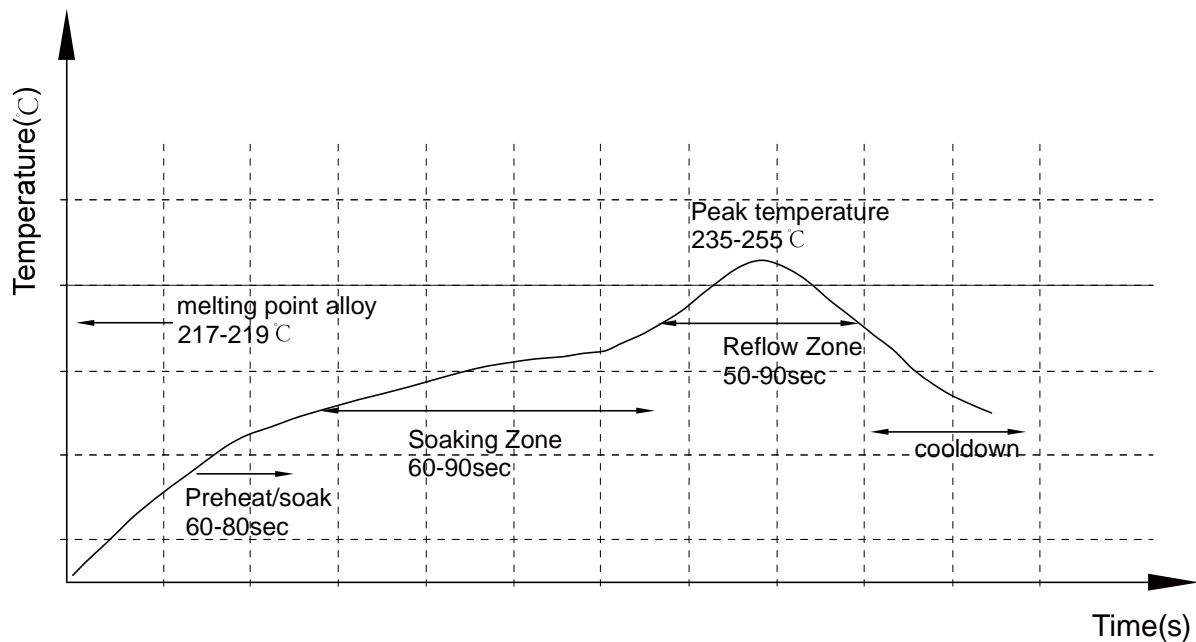
Recommended PCB Layout



NOTE:

1. 50Ω line width is shown above designing from RO4350B dielectric thickness 0.762mm; copper 1 OZ
2. Bottom side of the PCB is continuous ground plane.
3. All dimensions shown in mm.

Reflow Profile

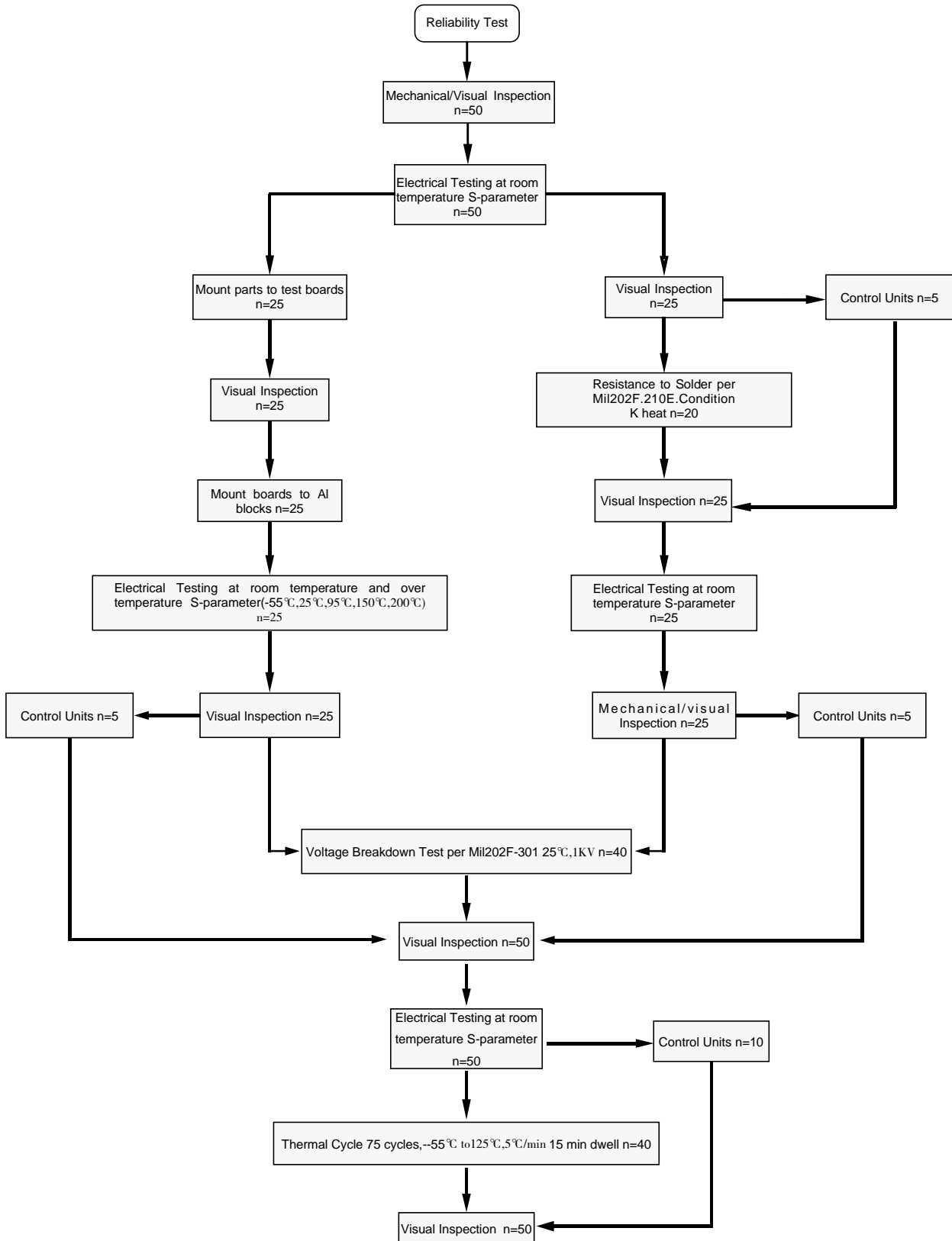


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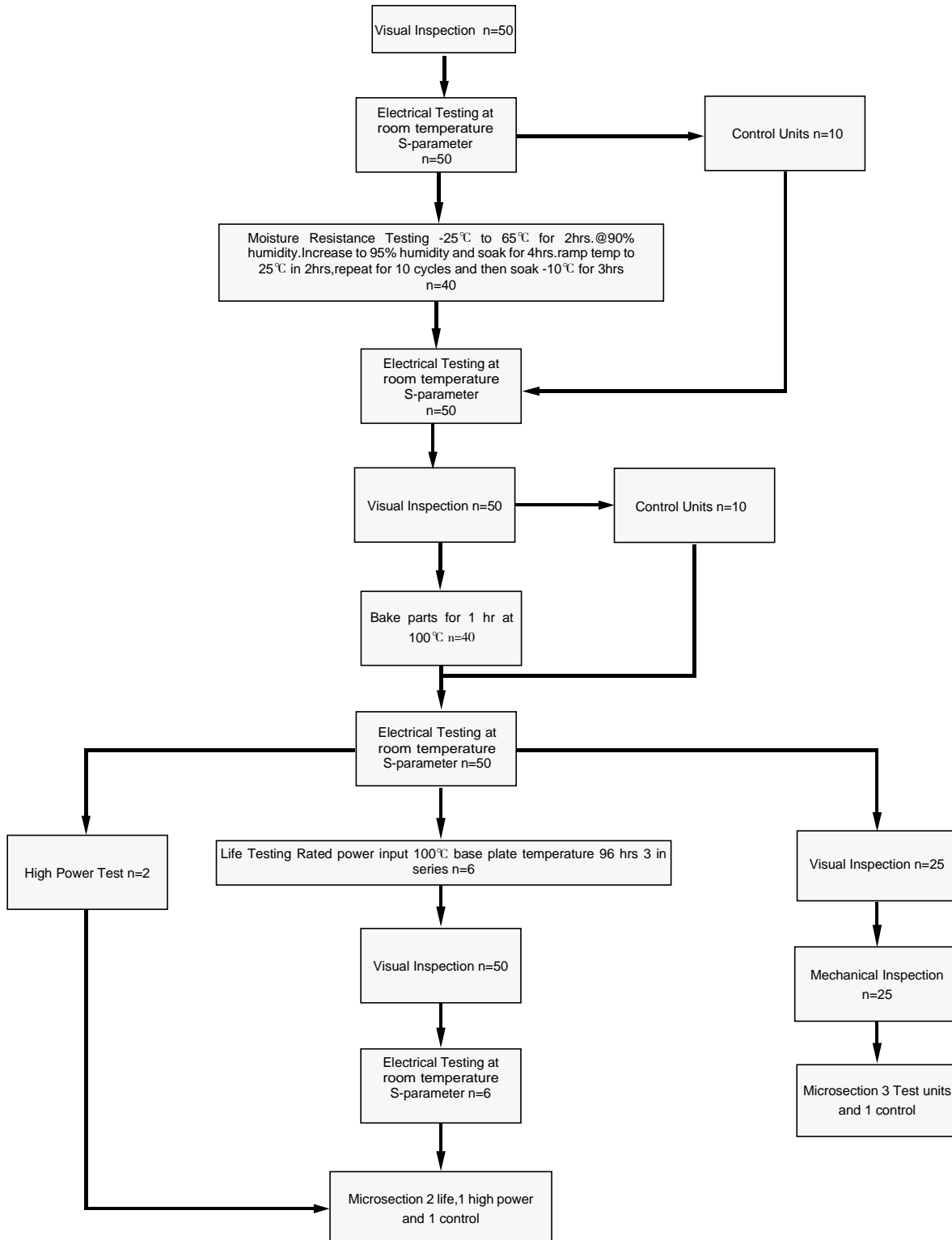
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Reliability Test Flow



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Reliability Test Flow



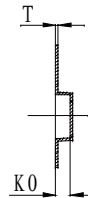
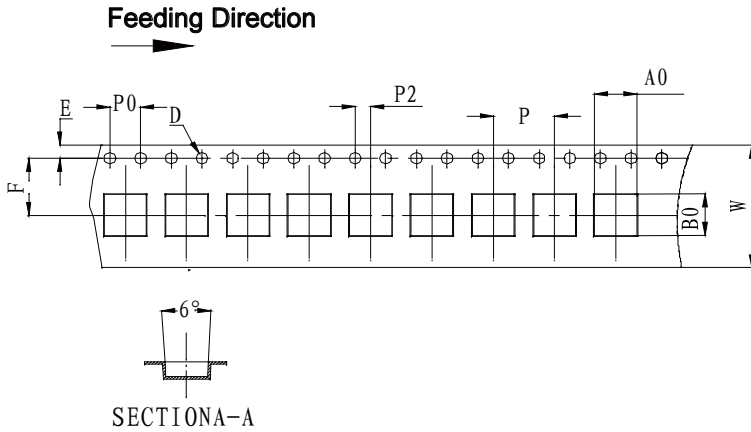
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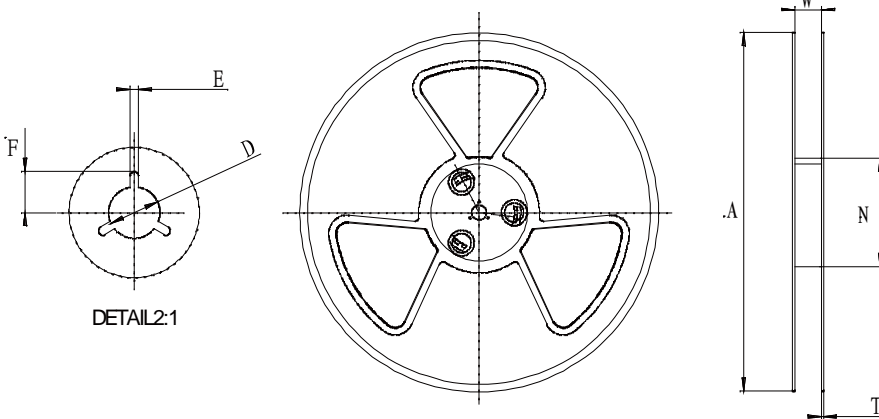
Tape and Reel Drawing



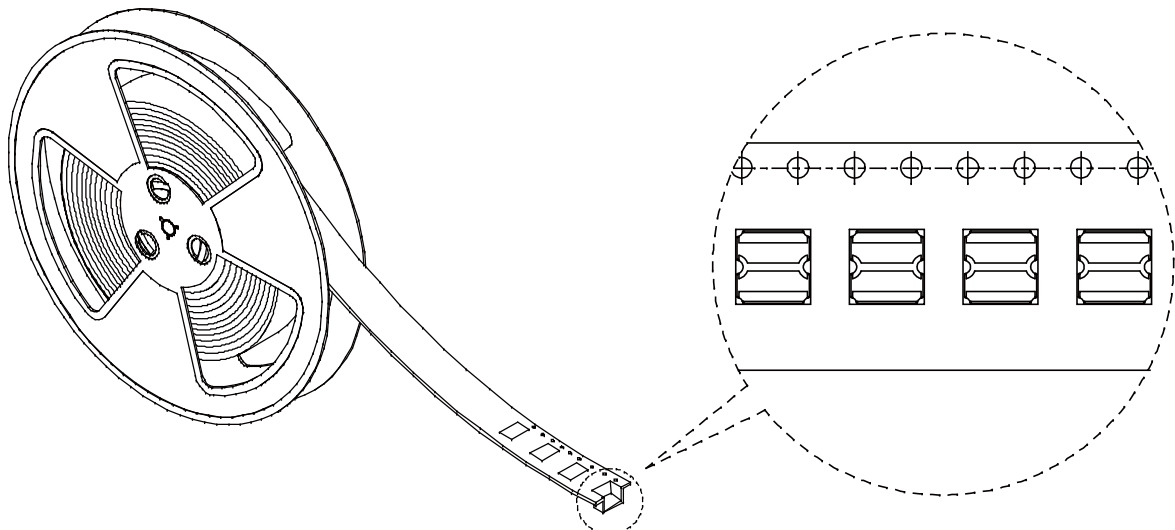
Notice:

- A. 10 Sprocket hole pitch cumulative tolerance is 0.2mm.
- B. Carrier camber shall be not more than 1mm per 100mm through a length of 250mm.
- C. All dimensions meet EIA-418-B requirements
- D. A0 & B0 measured as indicated.
- E. K0 measured from a place on the inside bottom of the pocket to top surface of carrier.
- F. Material: PE 100
- G. Thickness: 0.30 ± 0.05 mm
- H. 1000 units (maximum) / T&R

ITEM	W	A0	B0	K0	P	F	E	D	P0	P2	T	7"
DIM(mm)	16.0	5.30	5.30	1.40	8.00	7.50	1.75	1.50	4.00	2.00	0.30	P/R
TOLE	+0.30 -0.30	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.00	+0.10 -0.10	+0.10 -0.10	+0.05 -0.05	1000pcs



Symbol	Dimensions	
	(mm)	(inch)
W	16.5 ± 0.4	0.65
A	177 ± 0.5	7.0
N	63 ± 0.3	2.48
T	1.8 ± 0.2	0.071
E	2.1 ± 0.3	0.083
F	10.75 ± 0.3	0.423
D	$13.5 + 0.5 / - 0.2$	0.531



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