Miniature Ceramic Resonator

AWSCR-CPLA

Request Samples | Check Inventory

6.0 x 3.0 x 1.8mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Industry standard footprint
- Low resonance impedance
- Built-in capacitance options
- Wide operating temperatures in extended industry range

Applications

- Metering systems
- Remote control
- Microprocessor
- Industrial control
- Electric appliances

Key Electrical Specifications

Parameters		Minimum	Typical	Maximum	Units	Notes
Frequency Range		1.84		12.00	MHz	
Resonant Impedance (Ro)				100	Ω	1.84 MHz-2.99 MHz
				50		3.00 MHz-3.49 MHz
				30		3.50 MHz-12.00 MHz
Standard Built-in Capacitance (C1=C2)			30		pF	1.84 MHz-8.00 MHz (Tol 1pF± 20%)
		Other options: 10, 15, 22, 33, 39, 47				
			15			8.01 MHz-12.00 MHz (Tol 1pF± 20%)
		Other options: 10, 22, 30, 33, 39, 47				
Frequency Tolerance		-0.5		0.5	%	
Frequency Stability		-0.3		0.3	%	2.00-8.00 MHz
		-0.2		0.2	%	8.01-12.00 MHz
Withstanding Voltage				100	V	DC, 5s max
Voltage Rating	(1) D.C. Voltage			6	V	
	(2) A.C. Voltage			15	Vp-p	
Insulation Resistance (Ri)		500			MΩ	10V, 1 min
Operation Temperature		-40		+85	°C	
Storage Temperature		-55		+85	°C	
Aging Rate (Fosc)*		-0.1		0.1	%	From Initial Value

*Components shall be left in a chamber of +85±2°C for 1000 hours, then measured after leaving in natural Condition for 1 hours.

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Options and Part Identification

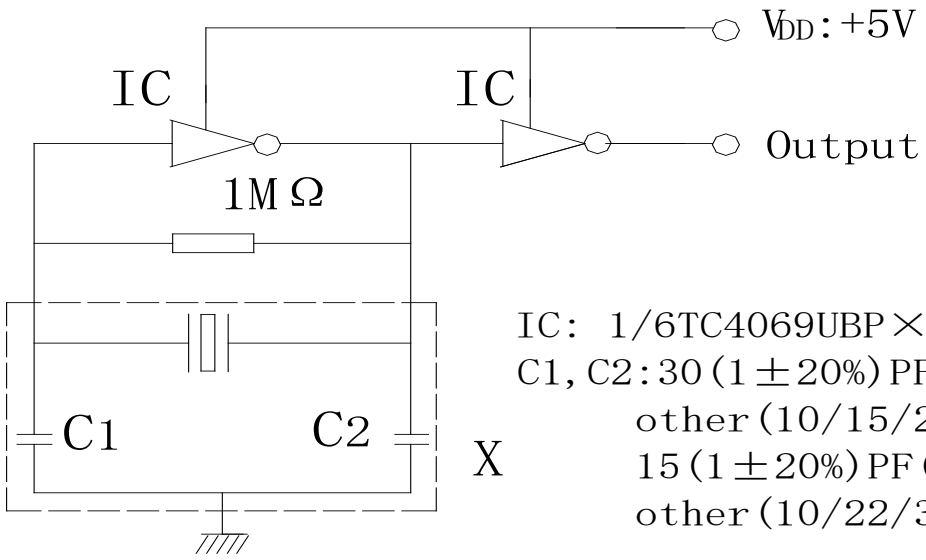
AWSCR – XX.XXCPLA - C□□ - □

Frequency	Size Code	Frequency Band	Temperature Rating	Cap Value	Packaging
Frequency in MHz	CP = 6 x 3 mm	L = Lower Band	A = -40/85 ºC	C = XX pF*	T4: 4000pcs/Reel

*Please refer to Electrical Specification table

Test Conditions and Test Circuit

Parts shall be tested under the condition (Temp: 20°C ± 15°C, Humidity: 65 ± 20% R>H., Atmospheric Pressure: 1 Atm).



IC: 1/6TC4069UBP×2
C1, C2:30(1±20%)PF(1.84-8.00MHz)
other(10/15/22/33/39/47pF)
15(1±20%)PF(8.01-12.00MHz)
other(10/22/30/33/39/47pF)

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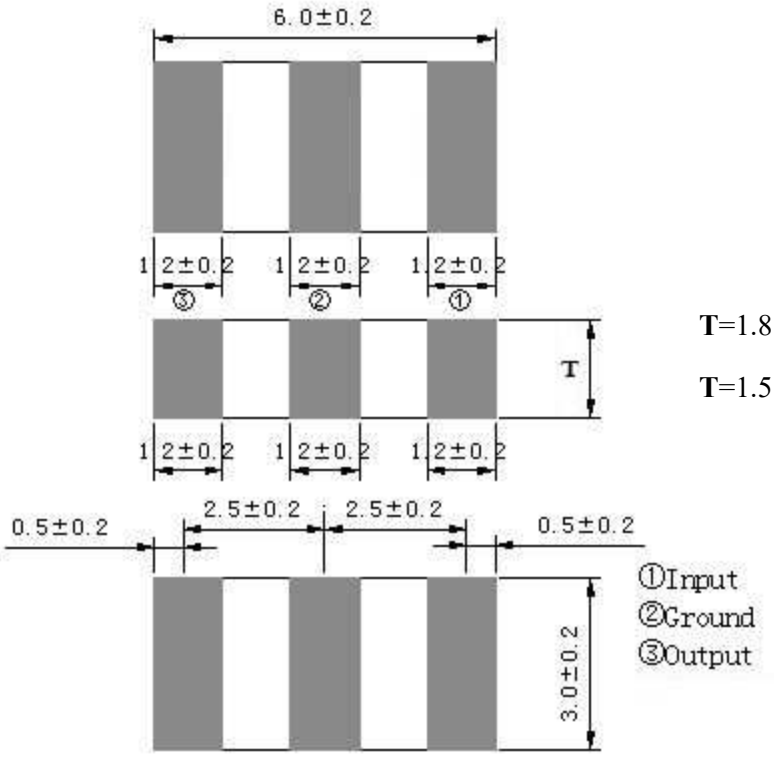
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Outline Dimensions

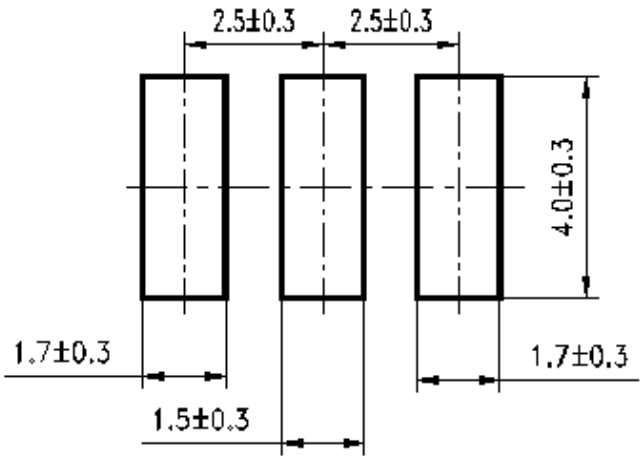
Top View



T=1.8±0.2mm (1.84-3.5MHz)

T=1.5±0.2mm (3.51-12.00MHz)

Recommended Land Pattern



Dimensions: mm

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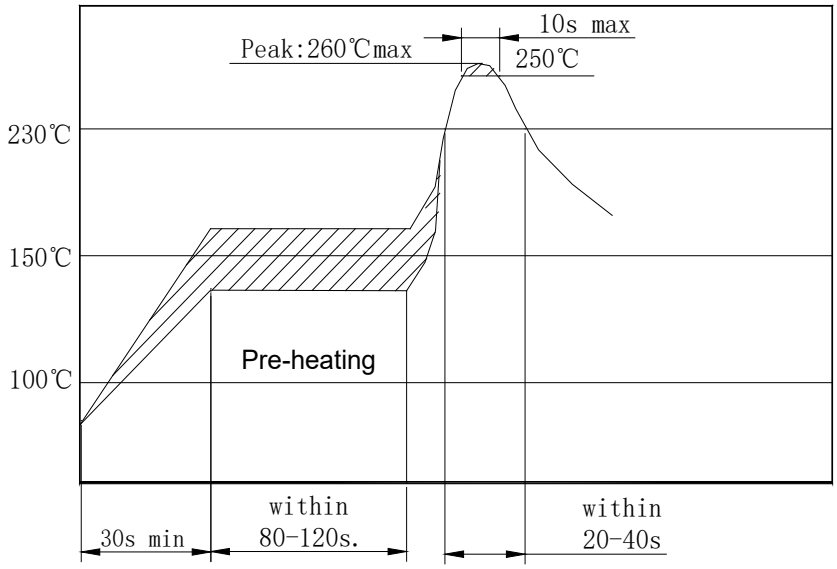
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Reflow Profile [JEDEC J-STD-020]



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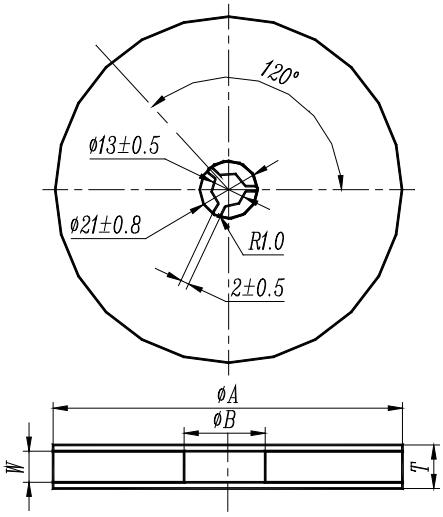
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Packaging – Reel Dimensions

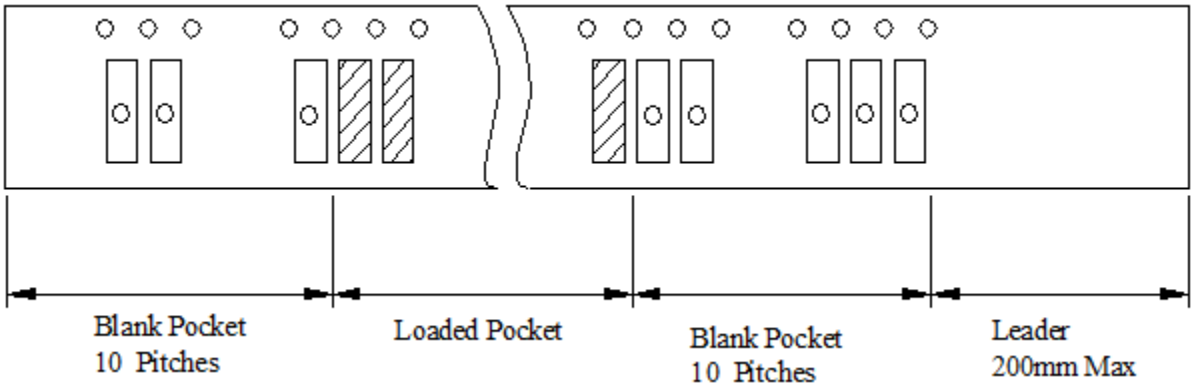
T4: 4000pcs/reel



ϕ A	ϕ B	W	T	Pieces per reel	Carrier tape size
330±3	80min	16.4min	22.4max	4000 typ.	16

Unit: mm

Packing Sketch



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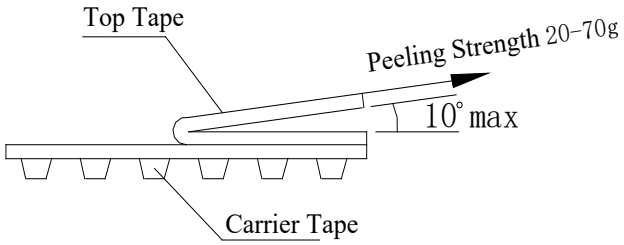
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Test Condition of Peel Strength



Caution

1) Do not apply excess mechanical stress to the component and terminals during soldering. Do not use this product if it is bent or damaged.
2) 2. Do not clean or wash the component for it is not hermetically sealed.
3) 3. Do not use a strong acidity flux with more than 0.2 wt% chlorine content during soldering.
4) 4. Do not place or use the item close to fire.
5) 5. Please ensure the component is thoroughly evaluated in your application circuit as the specification mentions the quality of the component as a single unit.
6) 6. Expiry date (Shelf life) of the products is 12 months after the date of delivery under the conditions of a sealed and an unopened package. Please use the products within 12 months after delivery. If the item is stored for more than 12 months, use caution before use as the item may be degraded in the solderability or develop rust. Please confirm solderability and characteristics for the products regularly.

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