Miniature Ceramic Resonator



AWSCR-CELB

3.2 x 1.3 x 1.0 mm
RoHS/RoHS II Compliant
Pb in ceramic, exemption (7c-I)
This product is not Moisture Sensitive - MSL = 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

Electrical Specifications

Parameters		Min	Typ.	Max	Units	Notes
Frequency Range		8.00		12.00	MHz	
Resonant Impedance (Ro)			40		Ω	8.00 MHz – 12.00 MHz
Standard Built-in Capacitance (C1=C2)			15		pF	8.00 MHz – 12.00 MHz (Tol 1pF ±20%)
		Other options: 10, 22, 30, 33				
Frequency Tolerance		-0.5		0.5	%	
Temperature Coefficient of Oscillation Frequency (%) max.		-0.2		0.2	%	Oscillator Frequency drift (-40 ºC to +125 ºC)
Withstanding Voltage				50	V	DC, 1 min
Voltage Rating	(1) D.C. Voltage			6	V	
	(2) A.C. Voltage			15	Vp-p	
Insulation Resistance		500			MΩ	10V, 1 min.
Operation Temperature		-40		+125	ºC	
Storage Temperature		-55		+125	ºC	
Aging Rate max (Fosc) * For 10 years		-0.2		0.2	%	From Initial value

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

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5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
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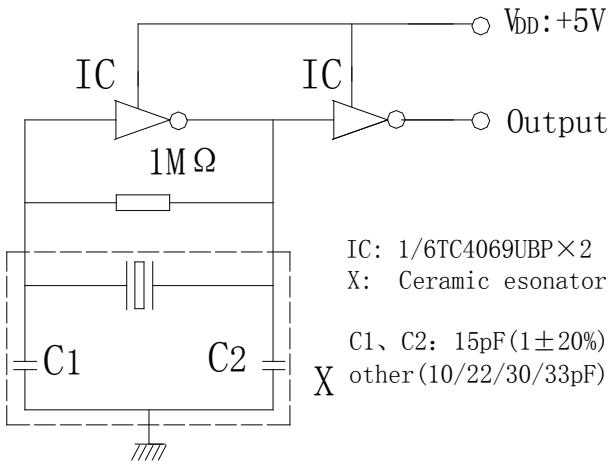
Options and Part Identification

AWSCR - □□.□□ CELB - C□□ - □

Frequency (MHz)	Size (mm)	Frequency Band	Operating Temperature	Built-in Cap	Packaging
8.000 - 12.000	CE = 3.2 x 1.3	L = Lower Band	B = -40 ºC to 125 ºC	15 pF (Standard) 10/22/30/33 pF (Other)	T3 = 3000 pcs/reel

Test Circuit and Conditions

Parts shall be tested under the condition (Temp.: 20 ºC ± 15 ºC, Humidity: 65 ± 20% R.H.) unless the standard condition (Temp.: 25 ºC ± 3 ºC, Humidity: 65 ± 10% R.H.) is regulated to measure.



IC: 1/6TC4069UBP×2
X: Ceramic esonator

C1、C2: 15pF(1±20%)
other(10/22/30/33pF)

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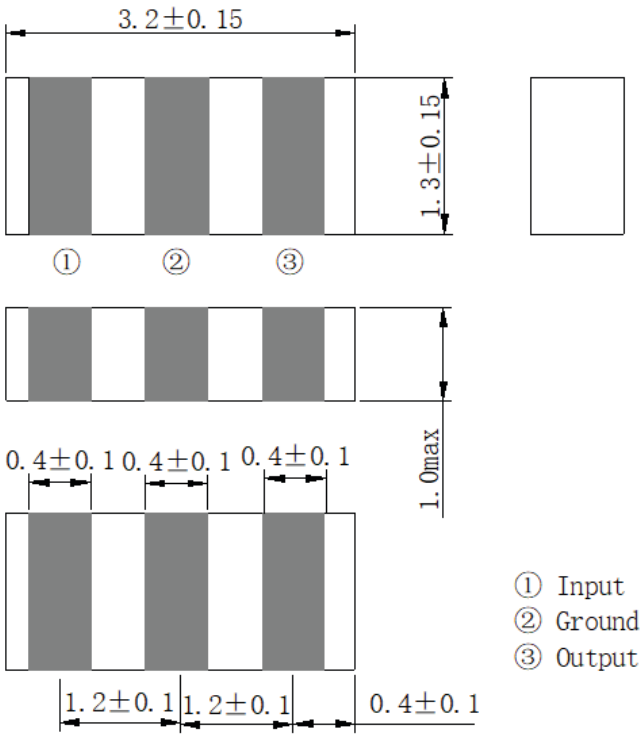
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Outline Dimensions



Unit: mm

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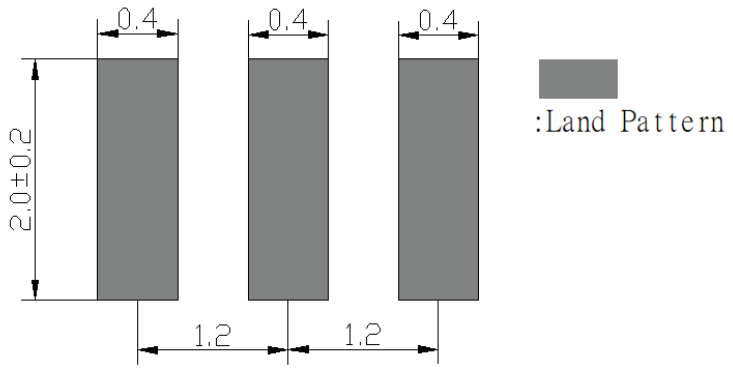
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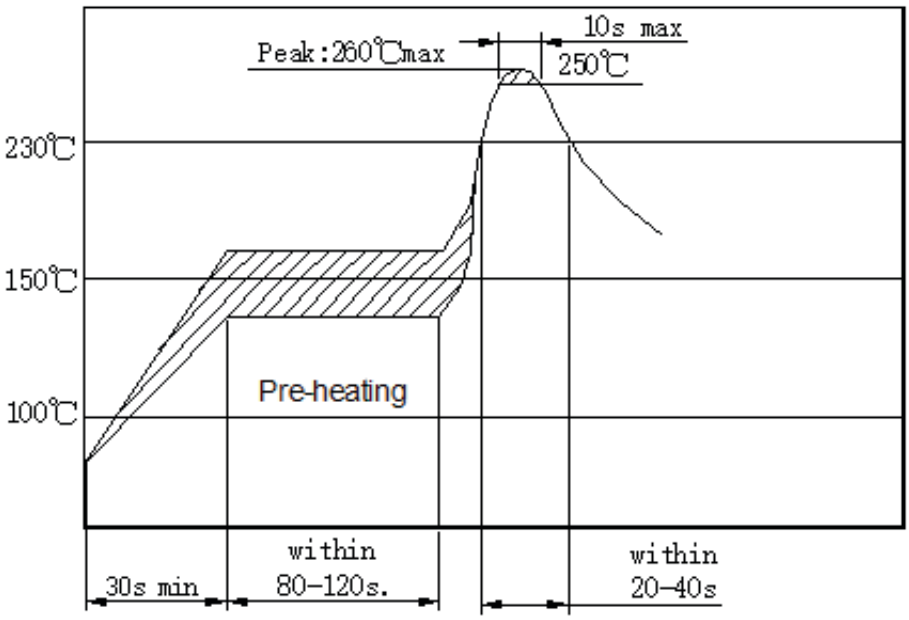
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Recommended Land Pattern



Unit: mm

Recommended Reflow Profile



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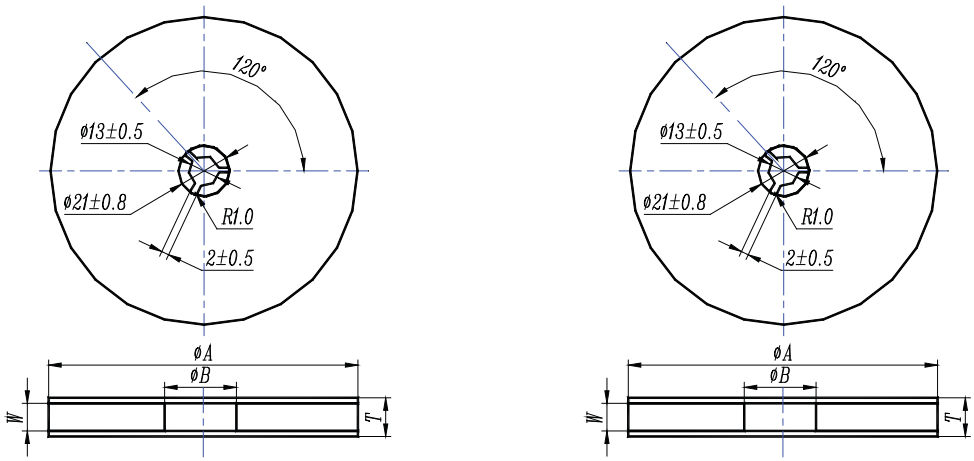
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Packaging

T3: 3000 pcs/reel

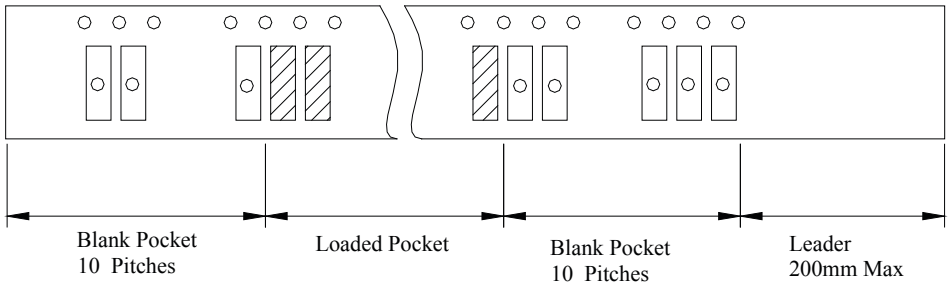
Reel Dimensions



Unit: mm

φA	φB	W	T	Pieces per reel	Carrier tape size
180 ± 3.0	60 min	8.4 min	12.4 max	3000 typ.	8

Packaging Sketch



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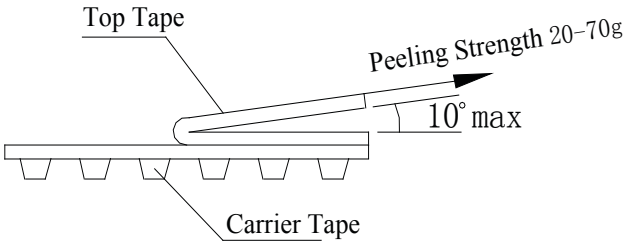


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Packaging

Test Condition for Peel-Off 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. Do not clean or wash the component for it is not hermetically sealed.
3. Do not use a strong acidity flux with more than 0.2 wt% chlorine content during soldering.
4. Do not place or use the item close to fire.
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. 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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