



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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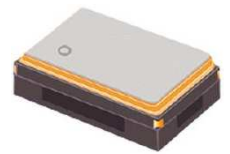
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Programmable – High Performance Low Jitter SMD XO



2.5 x 2.0 x 1.0 mm

ASG2-LJ



Moisture Sensitivity Level (MSL) – 1

FEATURES:

- LVCMOS, LVDS or LVPECL output option
- +2.5V or +3.3V operation
- -40°C to +85°C standard operating temperature range
- Ultra low RMS Jitter: 0.5ps typical, 1.0ps max (12kHz to 20MHz BW)
- Miniature size 2.5 x 2.0 x 1.0 mm Ceramic SMT Package
- Short lead time

APPLICATIONS:

- Networking
- SONET/SDH
- WiMax / WLAN
- Computing
- Phase Locked Loops
- Direct Digital Synthesis (DDS)
- DSL/ADSL
- Base Terminal Stations

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes	
Operating Temperature	-40		+85	°C		
Storage Temperature	-55		+125	°C		
Overall Frequency Stability	-50		+50	ppm	<i>See Note # 1</i>	
Initial Tolerance + Stability over operating temperature	-35.00		+35.00	ppm		
Supply Voltage (V _{dd})	V _{dd} = 3.3V	3.135	3.300	3.465	V	
	V _{dd} = 2.5V	2.375	2.500	2.625	V	
Enable/Disable Function :	"1" (V _{IH} ≥ 0.7*V _{dd}) or Open: Oscillation "0" (V _{IL} < 0.3*V _{dd}) : High Z					
Phase jitter RMS (12kHz to 20MHz BW)		0.5	1	ps		

Note #1: Inclusive of initial tolerance at 25°C±3°C, operating temperature range, input voltage variation, load variation & 15 years aging at 25°C.

Key Electrical Specifications – LVCMOS

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	8		200	MHz	
Supply Current (I _{dd})			40	mA	
Output Logic Level	V _{OH}	0.9*V _{dd}		V	I=±6mA
	V _{OL}		0.1*V _{dd}	V	
Rise Time	T _r		3	ns	10% to 90%
Fall Time	T _f		3	ns	
Duty Cycle	48	50	52	%	
Output Load			15	pF	

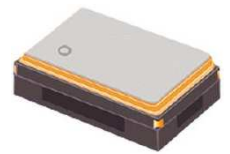
Key Electrical Specifications – LVDS

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	8		1500	MHz	
Supply Current (I _{dd})			40	mA	Freq. dependent
Differential Output Voltage Swing		350		mV	
Duty Cycle	45		55	%	@1.25V
Rise Time	T _r		600	ps	RL=100Ω/CL=10pF
Fall Time	T _f		600		

Key Electrical Specifications – LVPECL

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency Range	8		1500	MHz	
Supply Current (I _{dd})			65	mA	Freq. dependent
Output Logic Level	V _{OH}	V _{dd} - 1.025		V	50Ω nominal load
	V _{OL}		V _{dd} - 1.62	V	
Duty Cycle	45		55	%	@V _{dd} -1.3V
Rise Time	T _r		600	ps	20% to 80%
Fall Time	T _f		600		

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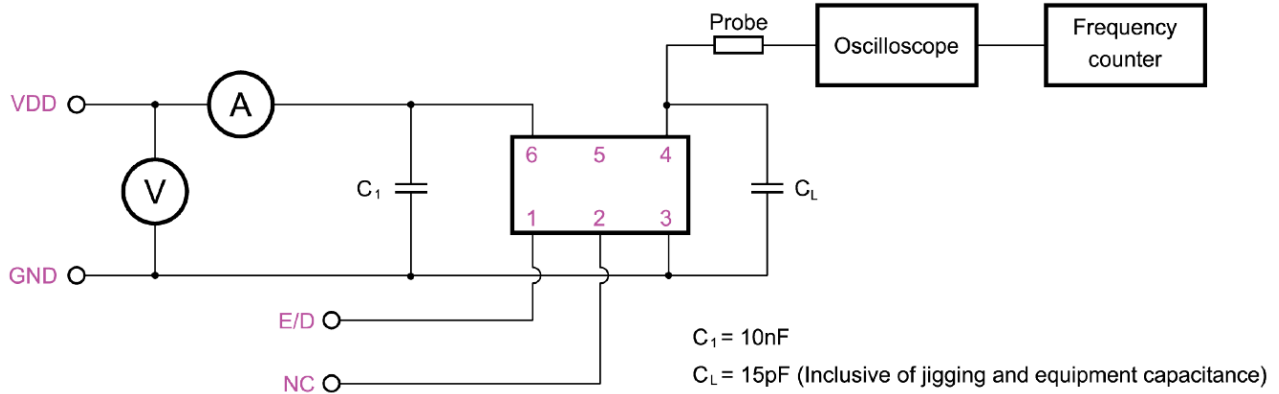
ASG2-LJ

ESD Sensitive

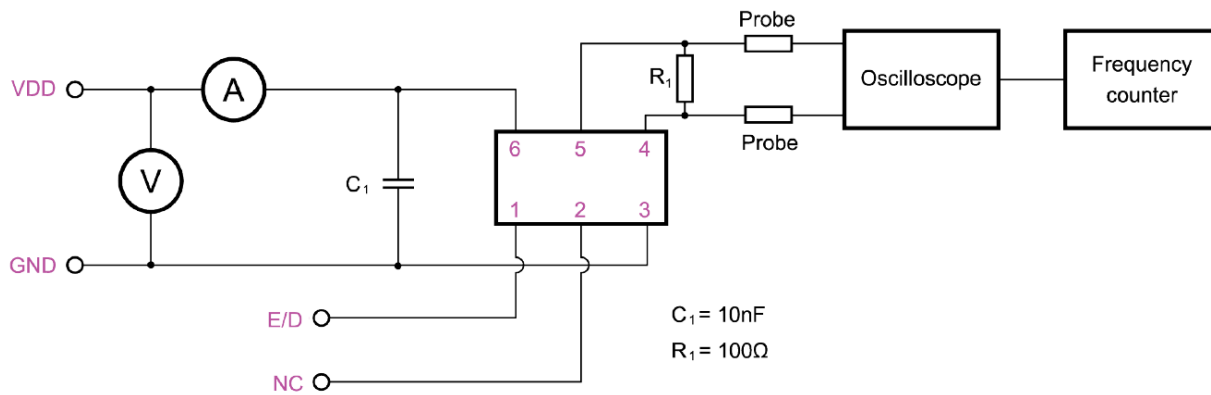
RoHS / RoHS II Compliant

TEST CIRCUIT

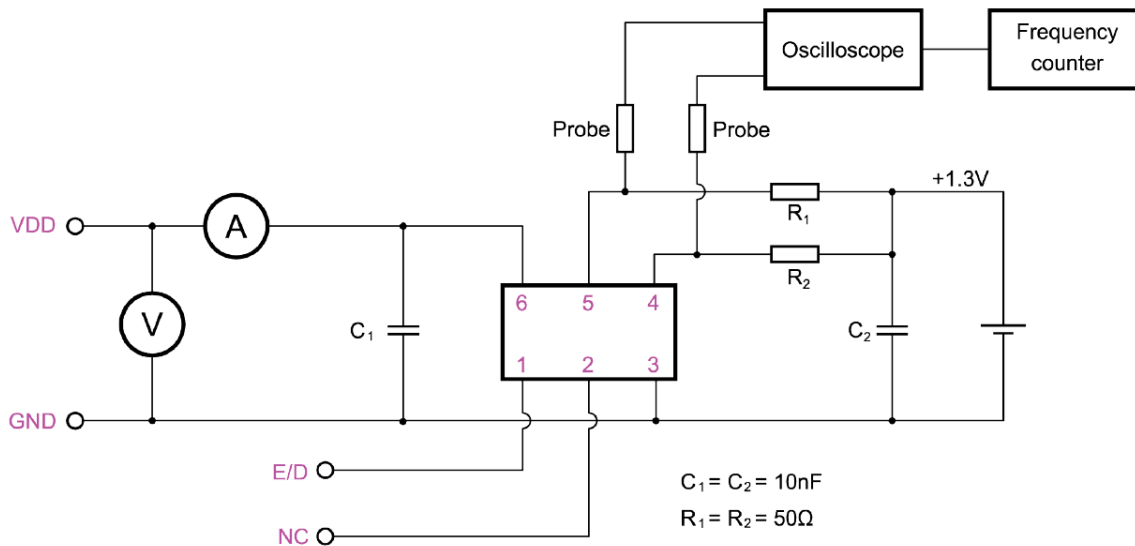
LVC MOS Output:

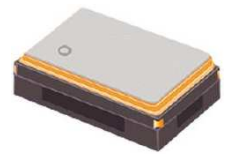


LVDS Output:



LVPECL Output:





OPTIONS & PART IDENTIFICATION:

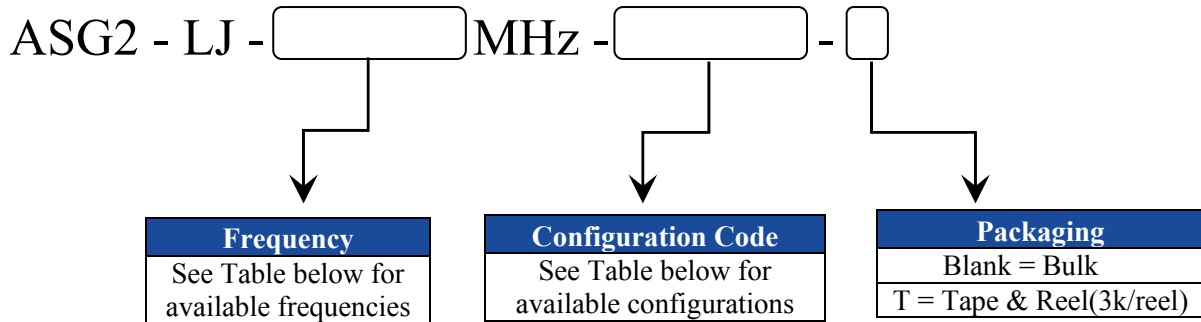


Table of Available Configurations

Abracon P/N	Frequency (MHz)	Freq. Stability Over Temperature (ppm)	Operating Temperature (°C)	Supply Voltage (V)	Output Type
ASG2-LJ-100.000MHz-513259	100	±35	-40 to +85	3.3	LVPECL
ASG2-LJ-125.000MHz-513280	125	±35	-40 to +85	3.3	LVPECL
ASG2-LJ-125.000MHz-513281	125	±35	-40 to +85	2.5	LVPECL
ASG2-LJ-156.250MHz-513282	156.25	±35	-40 to +85	3.3	LVPECL
ASG2-LJ-156.250MHz-513283	156.25	±35	-40 to +85	2.5	LVPECL
ASG2-LJ-200.000MHz-513284	200	±35	-40 to +85	3.3	LVPECL
ASG2-LJ-212.500MHz-513285	212.5	±35	-40 to +85	3.3	LVPECL
ASG2-LJ-250.000MHz-513286	250	±35	-40 to +85	3.3	LVPECL
ASG2-LJ-312.500MHz-513287	312.5	±35	-40 to +85	3.3	LVPECL
ASG2-LJ-285.000MHz-516733	285	±35	-40 to +85	3.3	LVPECL
ASG2-LJ-400.000MHz-513288	400	±35	-40 to +85	3.3	LVPECL

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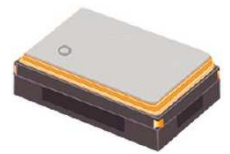
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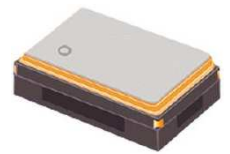
2.5 x 2.0 x 1.0 mm

➤ OPTIONS & PART IDENTIFICATION:

Table of Available Configurations (continued)

Abrakon P/N	Frequency (MHz)	Freq. Stability Over Temperature (ppm)	Operating Temperature (°C)	Supply Voltage (V)	Output Type
ASG2-LJ-1000.000MHz-513289	1000	±35	-40 to +85	3.3	LVPECL
ASG2-LJ-100.000MHz-513290	100	±35	-40 to +85	2.5	LVDS
ASG2-LJ-125.000MHz-513291	125	±35	-40 to +85	2.5	LVDS
ASG2-LJ-156.250MHz-513292	156.25	±35	-40 to +85	2.5	LVDS
ASG2-LJ-200.000MHz-513293	200	±35	-40 to +85	2.5	LVDS
ASG2-LJ-212.500MHz-513294	212.5	±35	-40 to +85	2.5	LVDS
ASG2-LJ-250.000MHz-513295	250	±35	-40 to +85	2.5	LVDS
ASG2-LJ-312.500MHz-513296	312.5	±35	-40 to +85	2.5	LVDS
ASG2-LJ-400.000MHz-513297	400	±35	-40 to +85	2.5	LVDS
ASG2-LJ-100.000MHz-513298	100	±35	-40 to +85	2.5	LVC MOS
ASG2-LJ-125.000MHz-513299	125	±35	-40 to +85	2.5	LVC MOS
ASG2-LJ-156.250MHz-513300	156.25	±35	-40 to +85	2.5	LVC MOS
ASG2-LJ-200.000MHz-513301	200	±35	-40 to +85	2.5	LVC MOS
ASG2-LJ-1500.000MHz-515410	1500	±50 (Including 10-year aging)	-40 to +85	3.3	LVPECL

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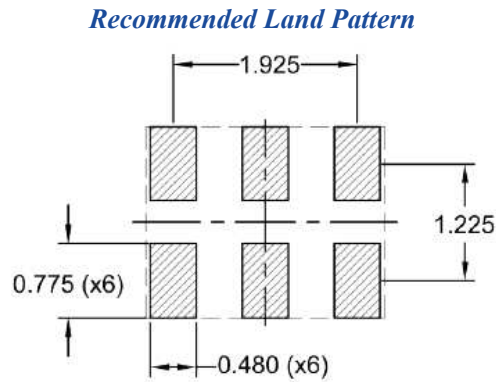
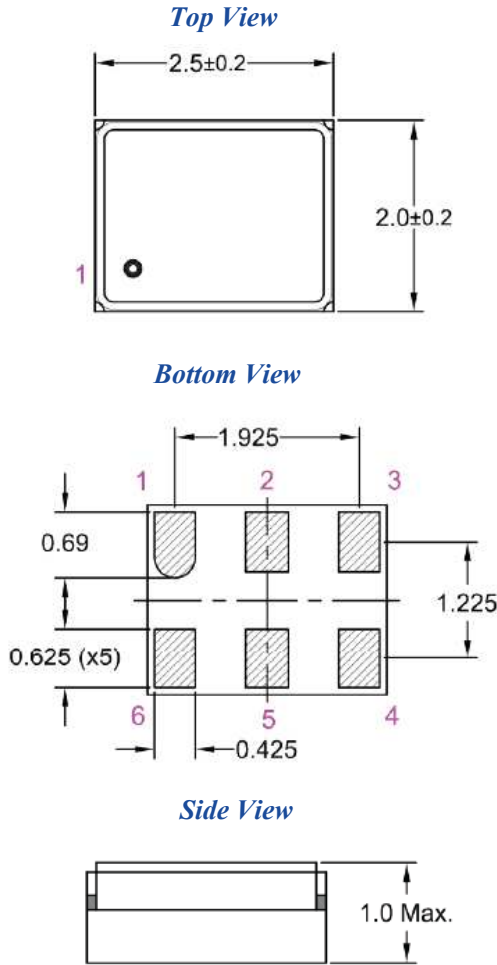


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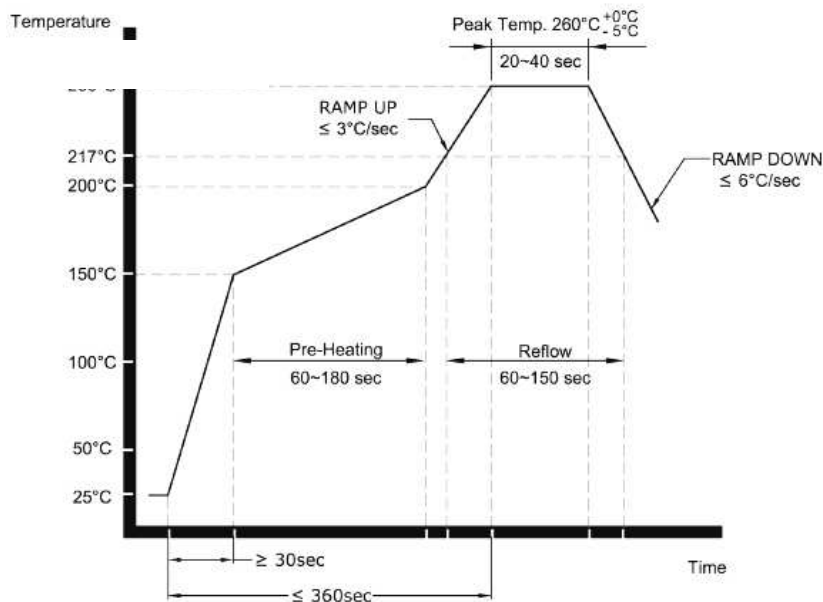
OUTLINE DIMENSION:



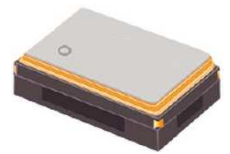
Pin #	Pin Description	
	LVC MOS	LVDS/LVPECL
1	Output Enable (OE)	
2	No Connect (N/C)	
3	GND	
4	RF Output	
5	No Connect (N/C)	Complimentary Output
6	Vdd	

Dimensions: mm

RECOMMENDED REFLOW PROFILE



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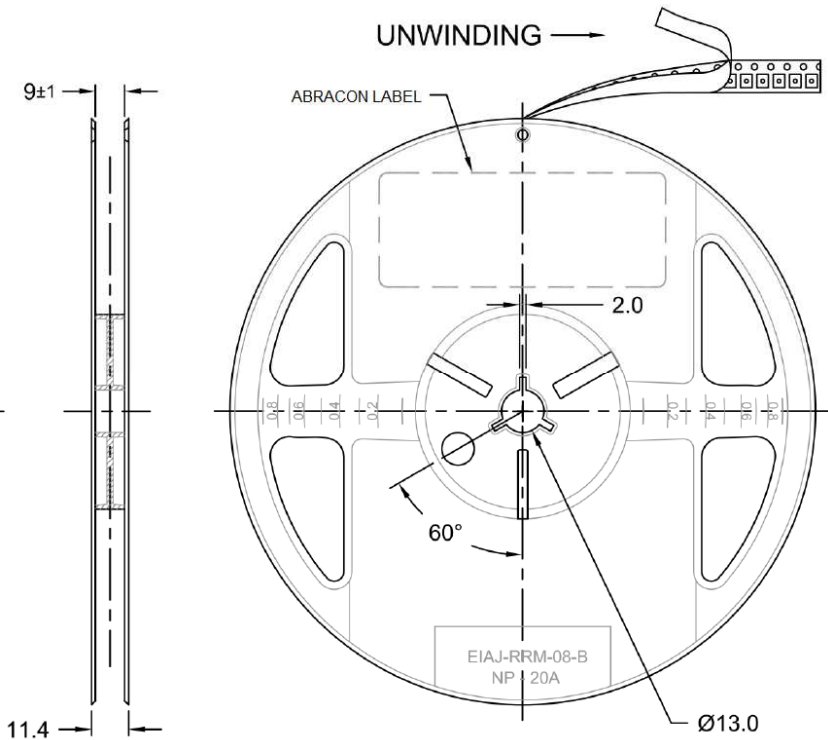
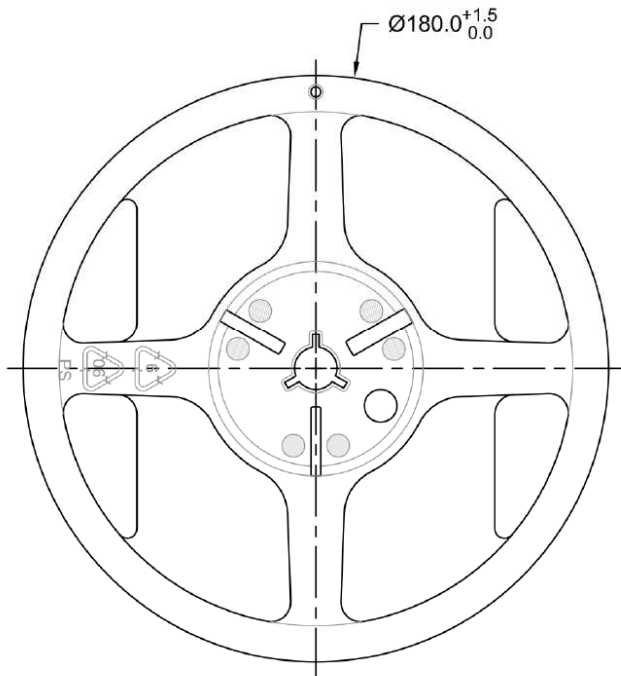
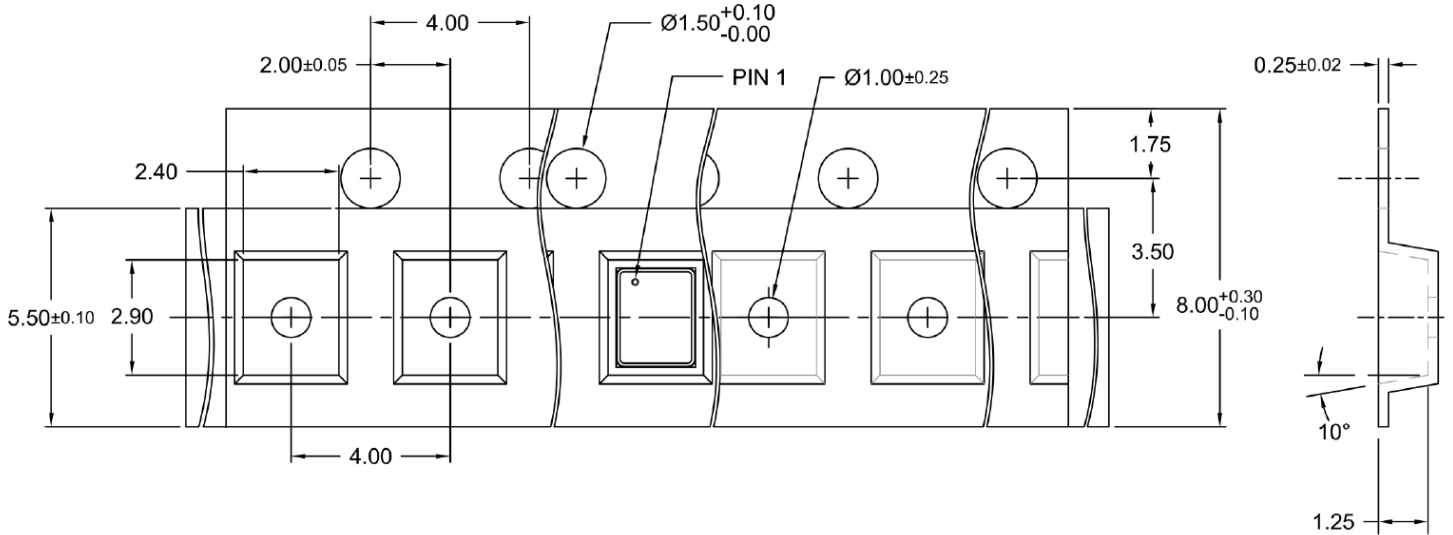
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TAPE & REEL:

T= Tape and reel (3,000pcs/reel)



Dimensions: mm

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