

32.768kHz SMD LOW PROFILE CRYSTAL

ABS05

ABS05



RoHS/RoHS II compliant

1.6 x 1.0 x 0.5mm

Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable

FEATURES:

- 0.5mm height ideal for high density circuit boards
- Ceramic package offers excellent environmental & heat resistance
- Extended temperature -40°C to +85°C for industrial applications

APPLICATIONS:

- Smart Display Credit Cards
- Wide range in communication & measuring equipment
- Commercial & Industrial applications
- Wireless communications
- PDA and Palm Pilots

Parameters	Minimum	Typical	Maximum	Units	Notes
Frequency	32.768			kHz	
Operation Mode	Flexural Mode (Tuning Fork)				
Operating Temperature	-40		+85	°C	
Storage Temperature	-55		+125	°C	
Frequency Tolerance @+25°C	-20		+20	ppm	Standard (See options if other than STD)
Temperature Coefficient:	-0.04	-0.03	-0.02	ppm/T ²	
Turn-over temperature:	+20	+25	+30	°C	
Equivalent series resistance (ESR)			90	kΩ	
Shunt capacitance (C0)		1.3		pF	
Load capacitance	12.5			pF	Standard (See options if other than STD)
Drive Level			0.5	μW	
Aging @ +25°C±3°C	-3		+3	ppm	First Year
Insulation Resistance	500			MΩ	@ 100Vdc ± 15V

OPTIONS AND PART IDENTIFICATION:

(Left blank if standard)

ABS05 – 32.768 kHz - - -

Load Capacitance
Blank: 12.5pF
9: 9pF
Contact Abracon for non-standard capacitance

Frequency Tolerance
Blank: ±20ppm
1: ±10ppm
4: ±30ppm

Packaging
Blank: Bulk
T: Tape & Reel (3000pcs/reel)
T5: Tape & Reel (5000pcs/reel)

32.768kHz SMD LOW PROFILE CRYSTAL

ABS05

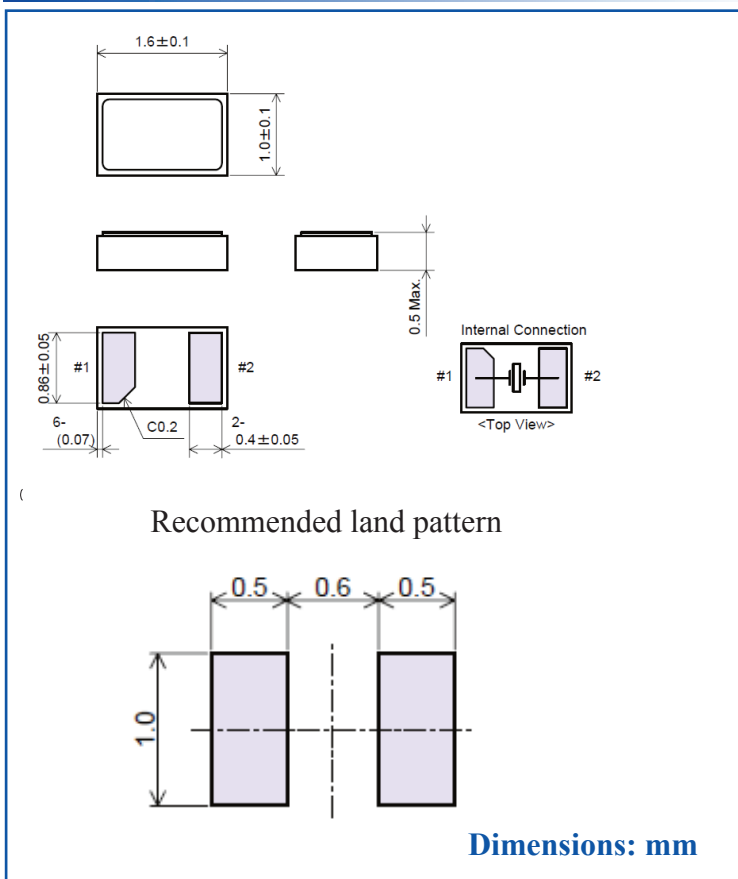
ABS05



RoHS/RoHS II compliant

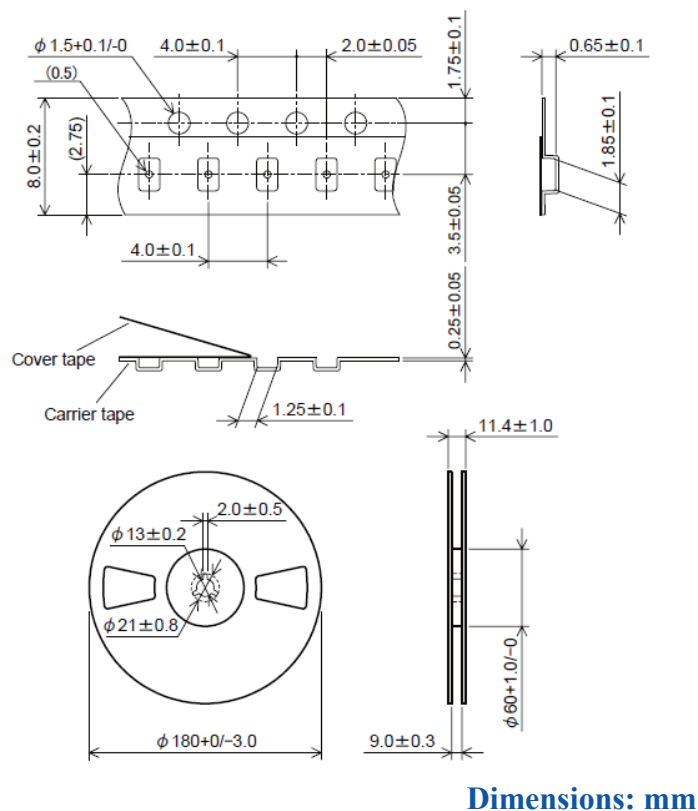
1.6 x 1.0 x 0.5mm

OUTLINE DRAWING:

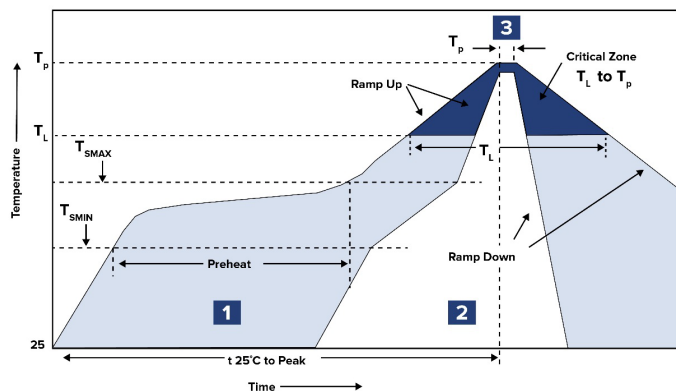


TAPE & REEL:

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



REFLOW PROFILE:



Zone	Description	Temperature	Time
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ $150^\circ\text{C} \sim 180^\circ\text{C}$	60 ~ 120 sec.
2	Reflow	T_L 230°C	30 ~ 40 sec.
3	Peak heat	T_P $260^\circ\text{C} \pm 5^\circ\text{C}$	10 sec. MAX

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[ABRACON:](#)

[ABS05-32.768KHZ-9-T](#) [ABS05-32.768KHZ-T](#)