# ABS07-120-32.768kHz-T; TUNING FORK CRYSTAL

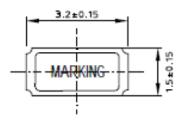
32.768kHz SMD; ESR OPTIMIZED CRYSTAL



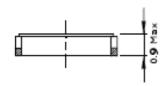


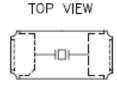
3.2 x 1.5 x 0.9 mm

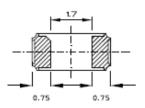
## **OUTLINE DRAWING:**

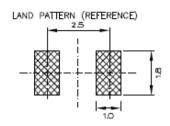












**Dimensions: mm** 

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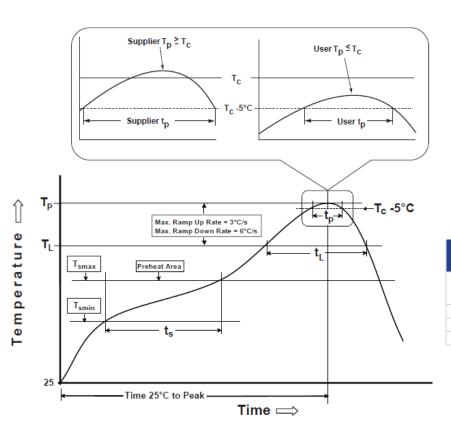
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3.2 x 1.5 x 0.9 mm

### Reflow Profile [JEDEC J-STD-020]



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Table 2
Pb-Free Process
Classification Temperatures (Tc)

_ Package Thickness	Volume mm³ <350	Volume mm <sup>3</sup> 350-2000	Volume mm³ >2000
<1.6 mm	260 °C	260 °C	260 °C
1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
>2.5 mm	250 °C	245 °C	245 °C

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat / soak		
Temperature minimum (T <sub>smin</sub> )	100°C	150°C
Temperature maximum (T <sub>smax</sub> )	150°C	200°C
Time (T <sub>smin</sub> to T <sub>smax</sub> ) (t <sub>s</sub> )	60 - 120 sec.	60 - 120 sec.
Average ramp-up rate (T <sub>smax</sub> to T <sub>P</sub> )	3°C/sec. max	3°C/sec. max
Liquidous temperature (T <sub>L</sub> )	183°C	217°C
Time at liquidous (t <sub>L</sub> )	60 - 150 sec.	60 - 150 sec.
Peak package body temperature (T <sub>P</sub> )*	see Table 1	see Table 2
Time $(t_p)^{**}$ within 5°C of the specified classification temperature $(T_c)$	20 sec.	30 sec.
Ramp-down rate (T <sub>p</sub> to T <sub>smax</sub> )	6°C/sec. max	6°C/sec. max
Time 25°C to peak temperature	6 min. max	8 min. max
Reflow cycles	2 max	2 max

<sup>\*</sup>Tolerance for peak profile temperature (T<sub>P</sub>) is defined as a supplier minimum and a user maximum.



<sup>\*\*</sup>Tolerance for time at peak profile temperature  $(t_{\mbox{\scriptsize p}})$  is defined as supplier minimum and a user maximum.

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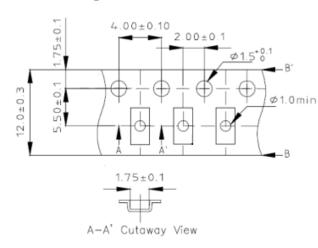


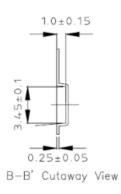


3.2 x 1.5 x 0.9 mm

### TAPE & REEL:

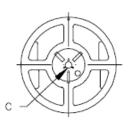
T=Tape and reel (3,000pcs/reel) T9=Tape and reel (9,000pcs/reel)

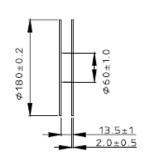


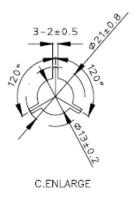


## **Reel=3,000pcs**

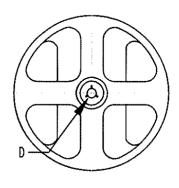
REEL: 3000PCS

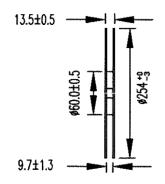


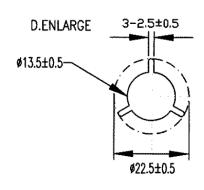




## Reel=9,000pcs







**Dimensions: mm** 

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