



TAE雅晶

序号Serial No. 2018090732

日期Date:2018-09-07

致TO: 深圳市猎芯科技有限公司

产品ITEM: 石英晶体谐振器 QUARTZ CRYSTAL UNITS

型号TYPE: SMD-3225 4PIN

标称频率NOMINAL FREQUENCY: 32MHz 12PF +/-10PPM

请收到我们的规格书后，签字回传。

Please confirm you received this specification,sign and fax it to us.

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RoHS Compliant Standard

T-3225



Features 特性

● Nominal Frequency 标称频率: 32MHz

● Suited for portable devices with low current consumption

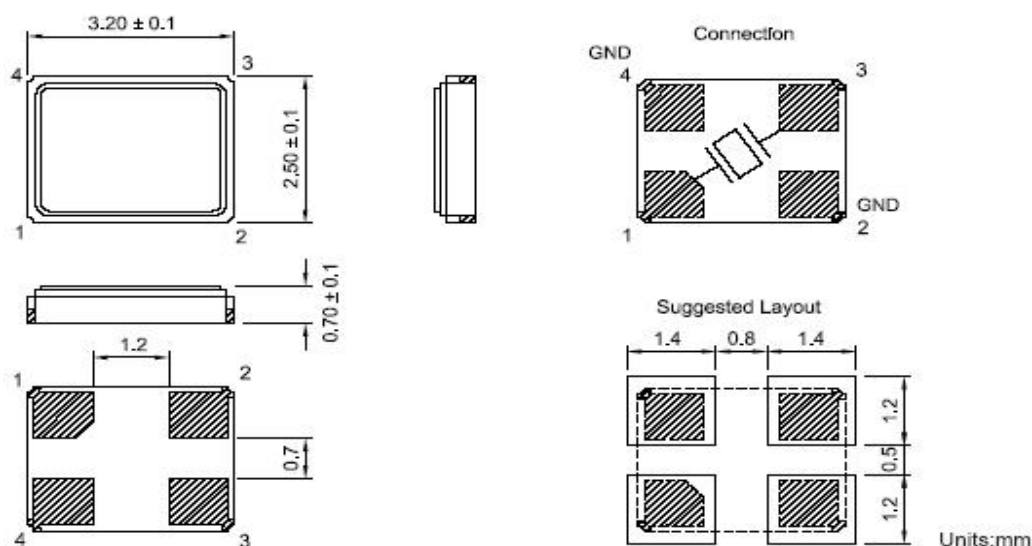
● 適合於低功耗的便攜設備

● For a clock source in electronic equipments 適用於电子設備的時鐘源

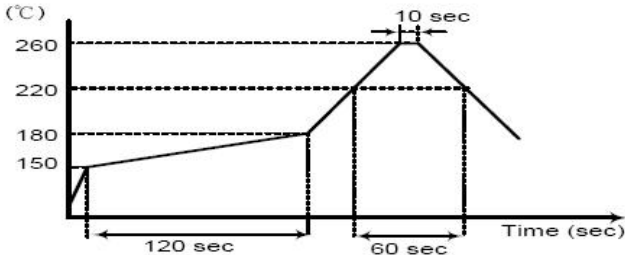
STANDARD SPECIFICATIONS 标准规格

Item	Model	T3225	Conditions
Frequency Range	标称频率	32MHz	
Frequency Tolerance	調整頻差	±10ppm Max	at 25°C
Freq. Tol. Over Temp.	溫度頻差	±30ppm Max	-40~+85°C
Operating Temp. Range	工作溫度範圍	-40~+85°C	
Storage Temp. Range	保存溫度範圍	-55~+125°C	
Series Resistance	諧振電阻	40Ω Max	
Load Capacitance	負載電容	12pF	
Shunt Capacitance	靜態電容	5.0pF Max	
Drive Level	激勵電平	500μw Max	
Aging	老化率	±5ppm/year Max	
Insulation Resistance	絕緣阻抗	500Mohm Min	DC100V±15V

OUTLINE DIMENSIONS (unit: mm)



序号 NO	项目 ITEM	条件 CONDITIONS	合格标准 BASIS OF VERDICT
1	跌落 Drop	75cm高处自由跌落到3cm厚硬木板上,3次 High:75cm;Thickness:3cm;3 times	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq 5\ \Omega \text{ or } \pm 15\%$ (whichever is larger)
2	振动 Vibration	频率 Frequency: 10~55Hz; 振幅Amplitude: 0.75mm X. Y. Z三个相互垂直方向各振动2小时 2Hours in each direction,total 6 hours	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq 5\ \Omega \text{ or } \pm 15\%$ (Whichever is Larger)
3	热冲击 Thermal shock	-55℃~+125℃, 1000个循环 最大转换时间: 5分钟; 停留时间: 5分钟 -55℃~+125℃, For 1000 cycles Maximum conversion time: 5 minutes;Remain time:5 minutes	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq 5\ \Omega \text{ or } \pm 20\%$ (Whichever is Larger)
4	湿热 Humidity	温度:85±3℃;湿度:85%;时间:96小时 Temp:85±3℃;Humidity:85%;Times:96h	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq 5\ \Omega \text{ or } \pm 20\%$ (Whichever is Larger)
5	低温 Cold resistance	温度:-40±3℃;时间:96小时 Temp:-40±3℃;Times:96h	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq 5\ \Omega \text{ or } \pm 20\%$ (Whichever is Larger)
6	湿度抗性 Humidity resistance	高温: 65℃ (10小时, 含升温), 低温: 25℃ (2小时, 含降温), 湿度90%, 循环10次, 每循环24小时 High-Temperature: 65℃±2℃ (10 hours, including heating), Low-Temperature: 25℃±2℃ (2 hours, including cooling), Humidity: 90%, for 10 cycles (24 hours/cycle)	$\Delta FL \leq \pm 10\text{ppm}$ $\Delta RS \leq 5\ \Omega \text{ or } \pm 20\%$ (Whichever is Larger)
7	机械冲击 Mechanical shock	半正弦波, 加速度1000G; Half sine wave,1000G X, Y, Z三个相互垂直方向各三次 3 Times for all 3 directions	$\Delta FL \leq \pm 5\text{ppm}$ $\Delta RS \leq 5\ \Omega \text{ or } \pm 15\%$ (Whichever is Larger)

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8	回流焊 Reflow		$\Delta FL \leq \pm 5 \text{ ppm}$ $\Delta RS \leq 5 \Omega \text{ or } \pm 15\%$ (Whichever is Larger) No Rusty
9	引脚拉力(SMD型) Pin pull	按照要求分别提供1.8kg的切向推力（60秒）以及1.8kg的垂直拉力（60秒） In accordance with the requirements, offering 1.8kg tangential thrust (60 seconds), and 1.8kg vertical pull (60 seconds) respectively.	电极不断裂 No Rupture Observed
10	老化 Aging	温度:85℃;时间:1000小时 Temp:85℃;Times:1000h	$\Delta FL \leq \pm 10 \text{ ppm}$ $\Delta RS \leq 5 \Omega \text{ or } \pm 10\%$ (Whichever is Larger)
11	可焊性 solderability	焊锡槽浸润 5 ± 0.5 秒, 温度: $245^\circ\text{C} \pm 5^\circ\text{C}$ The solder pot temperature is $245 \pm 5^\circ\text{C}$. Dwell time 5 ± 0.5	浸锡率 $\geq 95\%$ Solder Coverage $\geq 95\%$
备注	可靠性项目中的4、5、6、10，需在试验结束后 24 ± 2 小时进行测试。		