HOSONIC ELECTRONIC CO., LTD.

RoHS COMPLIANT

CRYSTAL UNIT SPECIFICATIONS

Customer	ADS
Customer P/N	
Product	DT-26 CRYSTAL
Nominal Frequency	32.768KHz
HOSONIC P/N	ETDA00327000KE
Version	10W0
Issue Date	2015/4/25

HOSONIC		
Drawn	**Checked**	**Approved**
LUCY	**ZOE**	**JOHN**

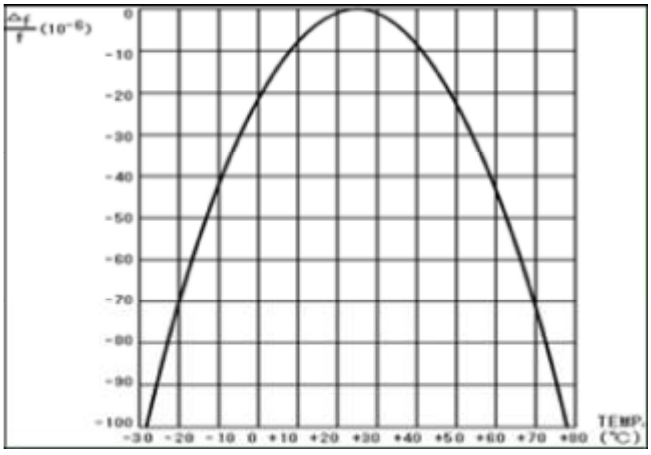
Approved By Customer : _____

Revised Record				
Rev.	Rev. Date	Item	Content	Remark
1.0	2015-04-25		Initial released	

I ELECTRICAL PARAMETERS

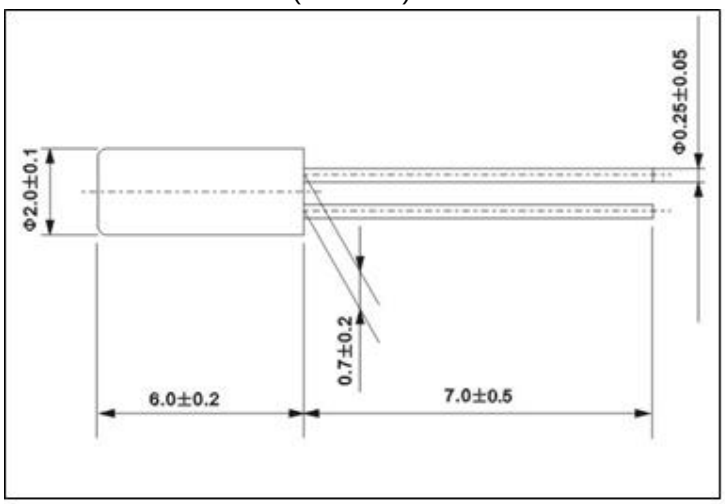
No.	Item	Symb.	Electrical Specification				Remark
			Min.	Typ.	Max.	Units	
1	Nominal Frequency	F0		32.768		KHz	
2	Mode of Vibration			Fundamental			
3	Frequency Tolerance	△F/F0	-20	-	20	ppm	at 25℃±3℃
4	Operating Temperature Range	TOPR	-10	-	60	℃	
5	Temperature Coefficient			-0.035±0.01		ppm/(△℃)^2	Ref. to 25℃
6	Turnover Temperature		20	25	30	℃	
7	Storage Temperature	TSTG	-40	-	85	℃	
8	Load capacitance	CL	-	12.5	-	pF	
9	Equivalent Series Resistance	ESR	-	-	35	KΩ	
10	Drive Level	DL	-	-	1	μW	
11	Insulation Resistance	IR	500	-	-	MΩ	At 100V_{DC}
12	Shunt Capacitance	C0	-	1.55	-	pF	
13	Aging Per Year	Fa	-5	-	5	ppm	First Year
14	Package type	DT-26					

I FREQUENCY VS. TEMPERATURE CURVE

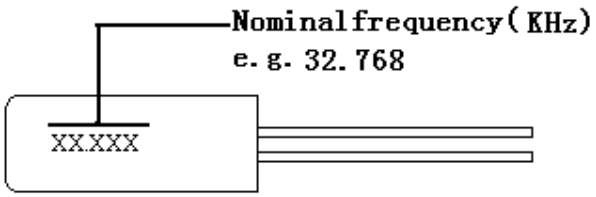


NOTE：Storage Temperature is only for the product itself,the temperature for the packing material is -4~40℃.

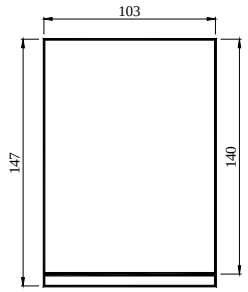
Outline Dimensions (unit: mm)

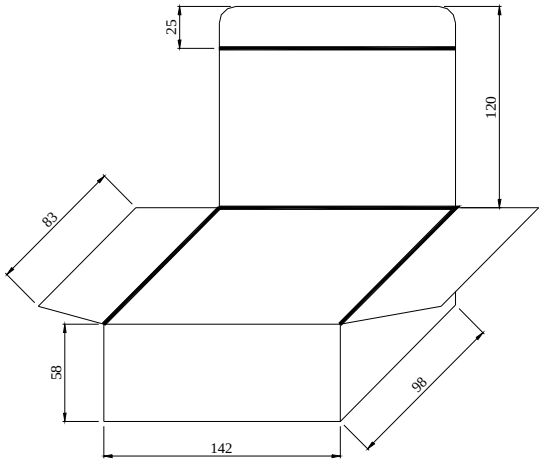


MARKING



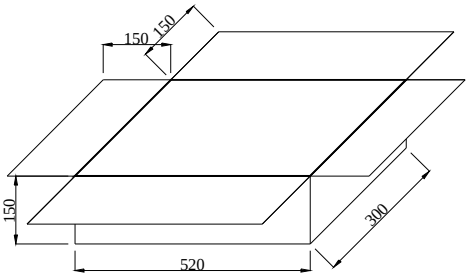
I PACKAGE (units : mm)

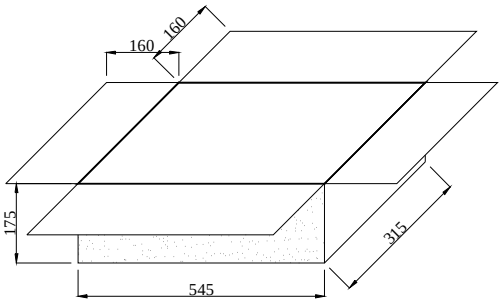




1000 PCS = 1 BAG

4 BAGS = 1 INNER BOX





20 INNER BOX = 1 BOX

1 BOX = 1 OUTER BOX

* 80 K PCS = 1 OUTER BOX

I RELIABILITY SPECIFICATIONS

No.	Test Item	Test Conditions	Requirements
1	High Temperature Endurance	Temperature: 85℃±2℃ Time: 2 Hours	△F:±10ppm Max. △RR:±15% or 5kohm Max.
2	Low Temperature Endurance	Temperature: -25℃±2℃ Time: 2 Hours	
3	Temperature Cycle	Temperature 1: -40℃±2℃ Temperature 2: 100℃±2℃ Temperature change between T1 and T2 at soonest Run 5 cycles, maintain T1 and T2 30minutes each in one cycle	
4	Drop Test	3 Times Free Fall from 75cm height table to 3cm thickness hard wood board	
5	Humidity Endurance	Temperature: 40℃ Relative Humidity: 90%--95% Time: 48Hours	
6	Salt Spray Test	salt density: 5% Temperature: 35℃ Time: 96 Hours	See to Note 1
7	Solderability	Dip in flux 3~5 seconds Temperature: 245℃±5℃	See to Note 2
8	Leakage	Helium: 0.5--0.6 Mpa Time: 1Hours	Leakage:1x10¯8mbar.l/s Max.
9	Lead Strength(DIP)	1. Lead with the 0.9kg(9N)power(keep it for 30s±5s) 2. bend the crystal lead 90° with 0.45kg power and two times （which you want to bend should be more than 1.5mm from the case)	Lead is not abnormity
10	Vibration	Frequency Range: 10Hz~55Hz Amplitude: 1.5mm Cycle Time: 1-2min(10~55~10Hz) 2Hours in each direction, total 6Hours	△F:±10ppm Max. △RR:±15% or 5kohm Max

Note 1: he appearance shall has no abnormity;△F:±10ppm Max.;△RR:±15% or 5kohm Max.

Note 2:The dipped surface of the leads should be at least 95% covered with continuous new solder coating