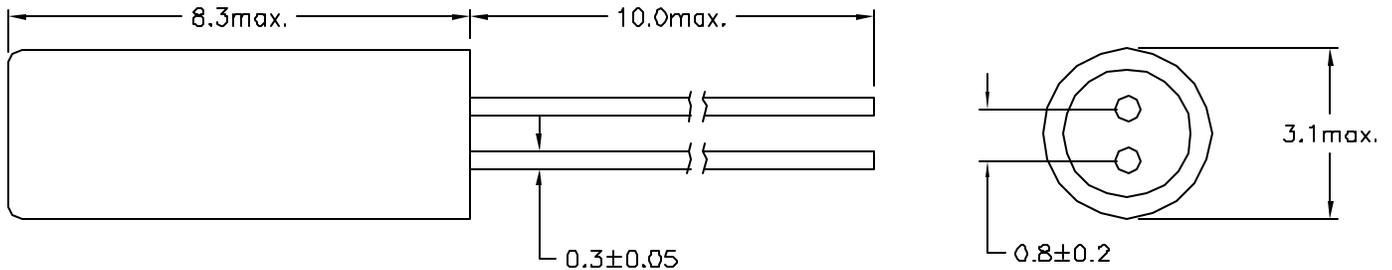


DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
2022	A	RELEASED	JN	3/10/09	JWM	3/10/09	JWM	3/10/09



ELECTRICAL PARAMETERS:

No.	DESCRIPTION	CONTENTS
1	Holder Type	JU308
2	Nominal Frequency	32.768 KHz
3	Frequency Tolerance (25°C± 2°C)	±20 ppm
	Frequency Tolerance in Operating Temperature Range	±20 ppm
4	Turnover Temperature	25°C± 2°C
5	Parabolic Curve Constant	-0.034 ppm/ °C
6	Operating Temperature Range	-40 °C +70 °C
7	Storage Temperature Range	-40 °C +85 °C
8	Equivalent Series Resistance	25k Ω Max.
9	Load Capacitance	12.5 pF Typ.
10	Trend Capacitance	0.0035pF Typ.
11	Shunt Capacitance	1.50pF Typ.
12	Capacitance Ratio	460 Typ.
13	Insulation Resistance (DC 100V ± 15V)	500MΩ Min.
14	Aging (25°C± 3°C)	±2ppm Max.
15	Shock Resistance (Natural Drop 3 Rimes on Hard Wooden Board from Height 30cm)	±2ppm Max.
16	Drive Level	1ì W Max.
17	Airproof	1×10 ⁻² μ Pa.m ³ /s MAX.
18	Pb Free & RoHS Compliant	Yes

SPC-F004.DWG

TOLERANCES: UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.	DRAWN BY:	DATE:	DRAWING TITLE:				
	Jason Nash	3/10/09	Crystal Resonator				
	CHECKED BY:	DATE:	SIZE	DWG. NO.	ELECTRONIC FILE	REV	
	Jeff McVicker	3/10/09	A	MCRJ332768F1220HOW	56P2824.dwg	A	
APPROVED BY:	DATE:	SCALE:		U.O.M.:		SHEET:	
Jeff McVicker	3/10/09	NTS		Millimeters		1 OF 2	

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SPECIFICATIONS

PHYSICAL & ENVIRONMENTAL PARAMETERS:

No	DESCRIPTION	CONTENTS	Requirements
1	Lead Strength	Force of 0.9 kg is applied for 10 seconds to each lead in axial direction.	No mechanical damage and the measured values shall meet electrical parameters.
	Lead Bending	Firmed the terminal up to 2 mm, lead shall be subjected to withstand against 90 ° bending its stem. This operation shall be done toward both direction.	
2	Vibration	10~55Hz 0.75mm amplitude, in 3 directions duration of 30 minutes.	
3	Dropping	The crystal will be test by natural dropping to 30mm wooden board 3 times from high of 30 cm.	
4	Solder Stability	Dipped the terminals no closer than 2 mm into the solder bath at 240 ± 5°C for 3±0.5 sec.	At least 95% of the terminal surface shall be coated by the solder
5	Thermal Shock	Temperature cycling from - 40°C (30mins) to +85°C (30mins) was performed 3 times, then placed in a natural condition for 2 hours.	Measured values shall meet electrical parameters.
6	Life Test (High Temperature)	Placed in a chamber (85 ± 2°C) for 48 hours, then placed in a natural condition for 2 hours.	
7	Life Test (Low Temperature)	Placed in a chamber (-40 ± 2°C) for 48 hours, then placed in a natural condition for 2 hours.	
8	Humidity	Placed in a chamber (Humi: 90~ 95% RH, Temp: 40 ± 2°C) for 48 hours, then placed in a natural condition for 2 hours.	

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SPC-F004.DWG

SIZE DWG. NO.

A MCRJ332768F1220HOW

ELECTRONIC FILE

56P2824.dwg

REV

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DOC. NO. SPC-F004 * Effective: 7/8/02 * DCP No: 1398

SCALE: NTS

U.O.M.: INCHES [mm]

SHEET: 2 OF 2