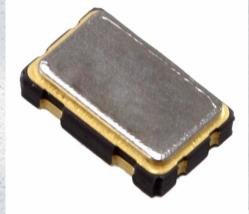


FN1120018 Datasheet

www.digi-electronics.com

Ν



DiGi Electronics Part Number	FN1120018-DG
Manufacturer	Diodes Incorporate
Aanufacturer Product Number	FN1120018
Description	XTAL OSC XO 11.28
Detailed Description	11.2896 MHz XO (S

FN1120018-DG Diodes Incorporated FN1120018 XTAL OSC XO 11.2896MHZ CMOS 11.2896 MHz XO (Standard) CMOS Oscillator 3.3V

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
FN1120018	Diodes Incorporated
Series:	Product Status:
SaRonix-eCera™ FN	Active
Base Resonator:	Туре:
Crystal	XO (Standard)
Frequency:	Output:
11.2896 MHz	CMOS
Voltage - Supply:	Absolute Pull Range (APR):
3.3V	
Operating Temperature:	Size / Dimension:
-10°C ~ 70°C	0.276" L x 0.197" W (7.00mm x 5.00mm)

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8542.39.0001	



A Product Line of **Diodes Incorporated**



SPECIFICATION FOR APPROVAL

CUSTOMER

NOMINAL FREQUENCY

PRODUCT TYPE

11.289600 MHz

TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

SPEC. NO. (P/N)

CUSTOMER P/N

ISSUE DATE

VERSION

FN1120018

March 13, 2018

F

APPROVED	PREPARED	QA
Brenda	Ress	Dong Jang

Diodes Incorporated

No.2, Ziqiang 5th Rd., Zhongli Industrial Park, Zhongli Dist., Taoyuan City 32063, Taiwan (R.O.C.) TEL: 886-3-451-8888 FAX: 886-3-461-3865 https://www.diodes.com

*Pb-free

*RoHS Compliant

*HF-Halogen Free

*REACH Compliant

TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATORFN1120018VER. F13-Mar-18

	VERSION HISTORY	
Version Date	Description	Notes
Mar.12,2009	Initial Release	
Aug.13,2009	Revise Format	
Jan.5,2010	Change Output Disable Delay from 50us to 50ns	
Aug.3,2010	Changed Logo	
Jan.9,2011	Revise Format	
Mar.13,2018	Updated logo	
	Date Mar.12,2009 Aug.13,2009 Jan.5,2010 Aug.3,2010 Jan.9,2011	Version DateDescriptionMar. 12,2009Initial ReleaseAug. 13,2009Revise FormatJan. 5,2010Change Output Disable Delay from 50us to 50nsAug. 3,2010Changed LogoJan. 9,2011Revise Format



TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR FN1120018 VER. F

13-Mar-18

ELECTRICAL SPECIFICATIONS

SRe Part Number : FN1120018

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	Fo	11.289600	MHz	
Frequency Stability	FT	± 50	ppm	**See note
Operating Temperature Range	TR	-10 to +70	°C	
Supply Voltage	V _{DD}	+3.3 ± 10.0%	V	
Logic Type	LT	CMOS		
Supply Current, Output Enabled	I _{DD} /OE	10	mA	Max.
Supply Current, Output Disabled	I _{DD} /OD	10	μA	Max.
Duty Cycle (Symmetry)	DC/SY	45 / 55	%	Measured 50% of Waveform
Rise / Fall Time	T _R /T _F	5	ns	Max. measured 10/90% of Waveform
Output Voltage "0" Level	V _{OL}	10% V _{DD}	V	Max.
Output Voltage "1" Level	V _{OH}	90% V _{DD}	V	Min.
Output Load	CL	15	pF	Мах
Storage Temperature Range		-55°C to +125°C	°C	

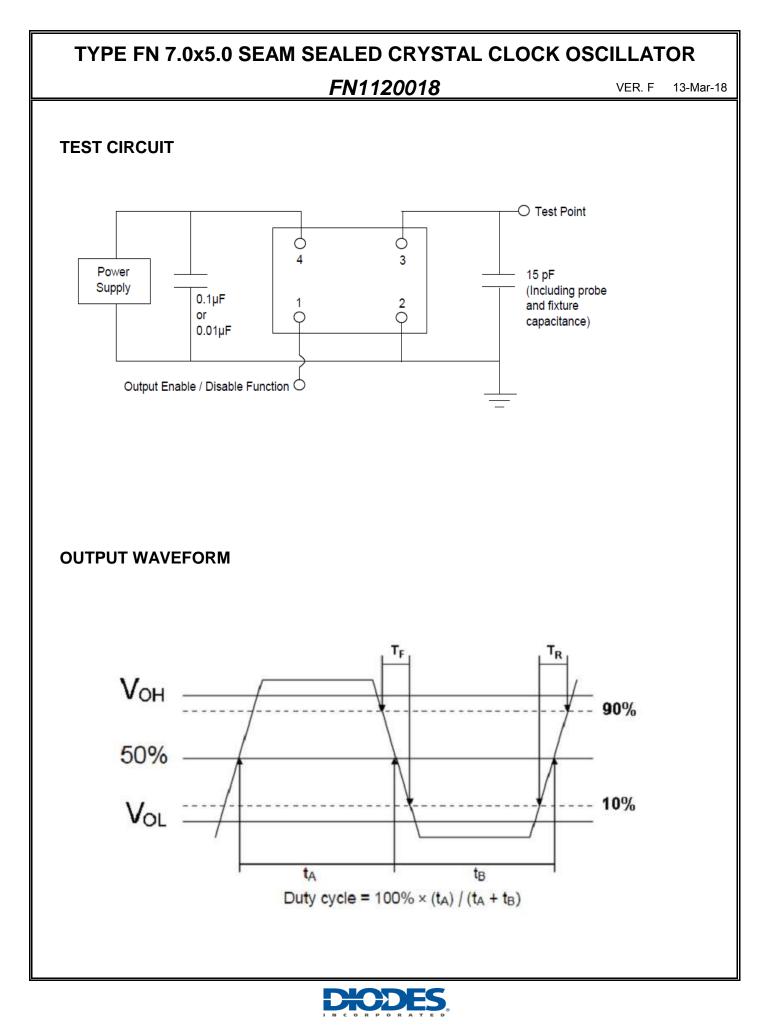
This product doesn't include harmful substance that stipulated by SONY SS-00259 Level 1 and S-AT2-001 Level 1 standard. RoHS Compliant (Pb - Free).

**Stability includes all combinations of Operating Temperature, Load changes, rated Input (Supply) Voltage changes, Initial Calibration Tolerance (25°C), Aging (1 year at 25°C Average Effective Ambient Temperature), Shock and Vibration.

Output Enable / Disable Function

Parameter	Min.	Тур.	Max.	Units	Notes
Input Voltage (Pin1), Output Enable	$0.7V_{DD}$			V	Or Open
Input Voltage (Pin1), Output Disable (low power standby)			$0.3V_{\text{DD}}$	V	Output is Hi-Z
Internal Pullup Resistance	30			KΩ	
Output Disable Delay			50	ns	





TYPE FN 7.0x5.0 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

FN1120018

VER. F 13-Mar-18

RELIABILITY SPECIFICATIONS

ENVIRONMENTAL:

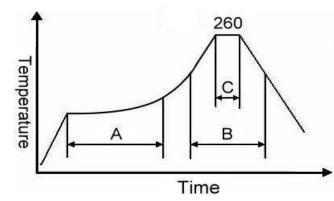
- a) THERMAL SHOCK: MIL-STD-883, Method 1011, Condition A
- b) MOISTURE RESISTANCE: MIL-STD-883, Method 1004
- c) VIBRATION: MIL-STD-883, Method 2007, Condition A
- d) RESISTANCE TO SOLDERING HEAT: J-STD-020D Table 5-2 Pb-free devices (except 2 cycles max)
- e) HAZARDOUS SUBSTANCE: Pb free and RoHS Compliant.

MECHANICAL:

- a) SHOCK: MIL-STD-883, Method 2002, Condition B
- b) SOLDERABILITY: JESD22-B102-D Method 2 (Preconditioning E)
- c) TERMINAL STRENGTH: MIL-STD-883, Method 2004, Test Condition D
- d) GROSS LEAK: MIL-STD-883, Method 1014, Condition C
- e) FINE LEAK: MIL-STD-883, Method 1014, Condition A2, R1=2x10⁻⁸ atm cc/s
- f) SOLVENT RESISTANCE: MIL-STD-202, Method 215

SUGGESTED IR REFLOW PROFILE

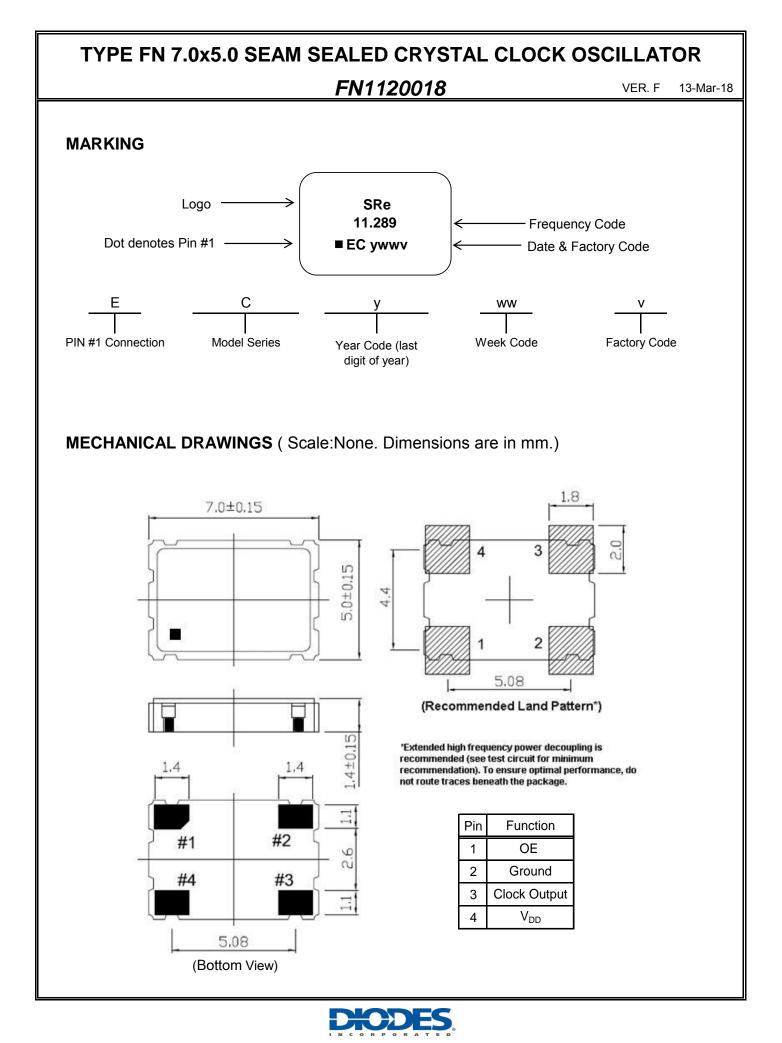
*As per IPC-JEDEC J-STD-020D

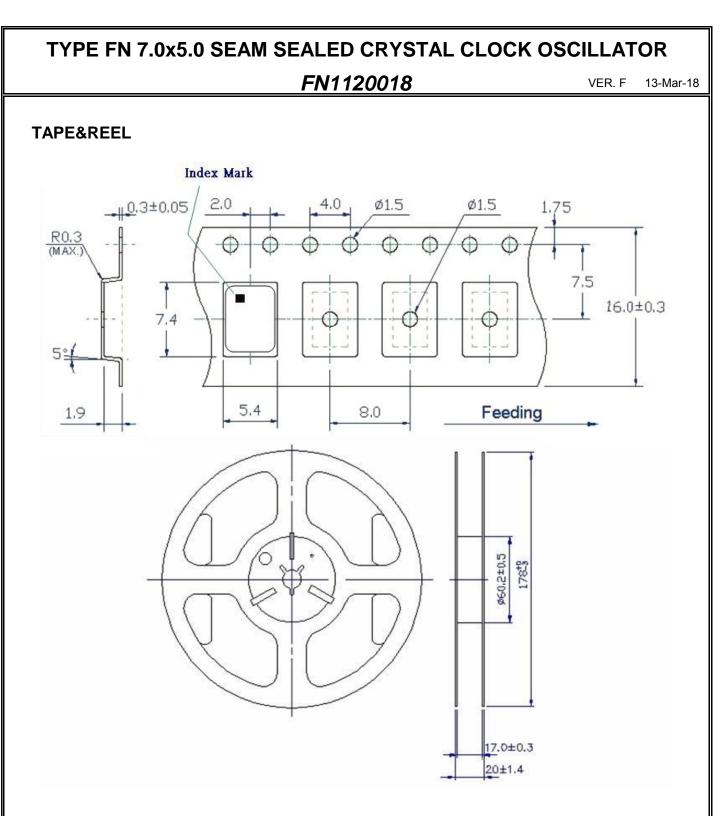


Note:

	Stage	Temperature	Time
А	Preheat	150~200°C	60~120 Sec
в	Primary Heat	217°C	60~150 Sec
С	Peak	260°C	10 Sec

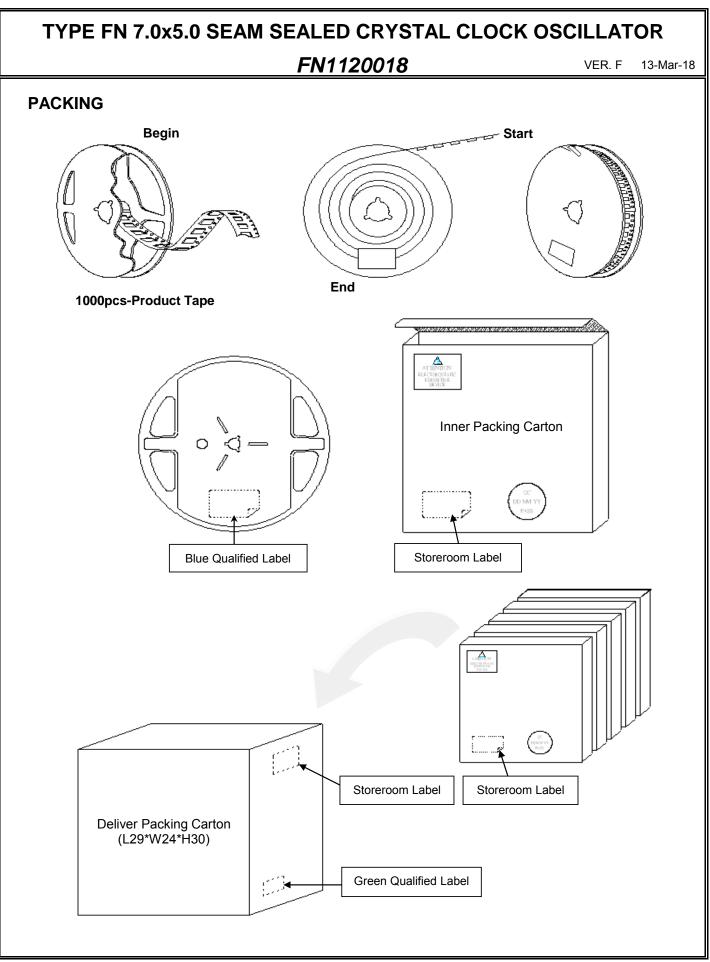






- 1. 230mm minimum leafer which consist of carrier and/or tape followed by a minimum of 160mm of empty carrier tape sealed with cover tape.
- 2. 160mm minimum trailer of empty carrier tape sealed with cover tape.









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DCI.	DCI.	DCI.	NO (1000)(1000) (1000)
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