



A Product Line of
Diodes Incorporated



ENGINEERING SPECIFICATION FOR REFERENCE

CUSTOMER _____

NOMINAL FREQUENCY 156.250000 MHz

HOLDER TYPE TYPE UX 3.2x2.5 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

SPEC. NO. (P/N) UX34F6203Z

CUSTOMER P/N _____

ISSUE DATE July 27, 2018

VERSION C

APPROVED	PREPARED	QA

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 UX 3.2x2.5 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX34F6203Z

VER. C 27-Jul-18

VERSION HISTORY

Version No.	Version Date	Description	Notes
01	Sep.1,2017	Initial Release	
02	Sep.4,2017	Updated output waveform	
03	Feb.6,2018	Updated logo	
04	Apr.25,2018	Reivse output voltage swing and output load	
A	Apr.27,2018	Formal version release	
B	Jun.4,2018	Updated Operating Temperature Range to -40~105°C	
C	Jul.27,2018	Change the word of Vdiff and Vcom ,Updated Test Circuit	



TYPE UX 3.2x2.5 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX34F6203Z

VER. C

27-Jul-18

ELECTRICAL SPECIFICATIONS

SRe Part Number : UX34F6203Z

Item	Symbol	Specifications	Units	Notes
Nominal Frequency	F ₀	156.250000	MHz	
Frequency Stability	FT	± 50	ppm	**See note
Operating Temperature Range	TR	-40 to +105	°C	
Supply Voltage	V _{CC}	+3.3 ± 5.0%	V	
Logic Type	LT	HCSL		
Supply Current, Output Enabled	I _{CC/OE}	40	mA	Max.
Supply Current, Output Disabled	I _{CC/OD}	10	uA	Max.
Duty Cycle (Symmetry)	DC/SY	45 / 55	%	Measured 50% of Waveform
Rise / Fall Time	T _R /T _F	40 / 120 / 1000	ps	Min. / Typ. / Max. measured 10% / 90% of waveform.
Differential Output Voltage Swing	V _{diff}	400 / 700 / 1200	mV	Min. / Typ. / Max.
Common mode output voltage	V _{com}	200 / 350 / 600	mV	Min. / Typ. / Max.
Output Load		Rs=0Ω, Rp=50Ω, CL=2pF		Typ. In HCSL termination
Jitter, Phase	RMS	0.2 / 0.3	ps	Typ./Max. 12KHz ~ 20MHz Frequency Band
Jitter, Accumulated	RMS(1-σ)	4	ps	Max. 20,000 Consecutive Periods
Jitter, Peak to Peak	Pk-Pk	40	ps	Max. 100,000 Random Periods
Phase Noise		-110	dBc/Hz	Max. at 10KHz offset
Phase Noise		-130	dBc/Hz	Max. at 100KHz offset
Phase Noise		-150	dBc/Hz	Max. at 1MHz offset
Phase Noise		-150	dBc/Hz	Max. at 10MHz offset
Phase Noise		-150	dBc/Hz	Max. at 20MHz offset
Phase Noise		-150	dBc/Hz	Max. at 100MHz offset
Start Up Time		10	ms	Max.
Storage Temperature Range		-55 to +125	°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

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (Pin1), Output Enable	0.7V _{CC}			V	Or Open
Input Voltage (Pin1), Output Disable (low power standby)			0.3V _{CC}	V	Output is Hi-Z
Output Disable Delay			200	ns	
Output Enable Delay			2	ms	



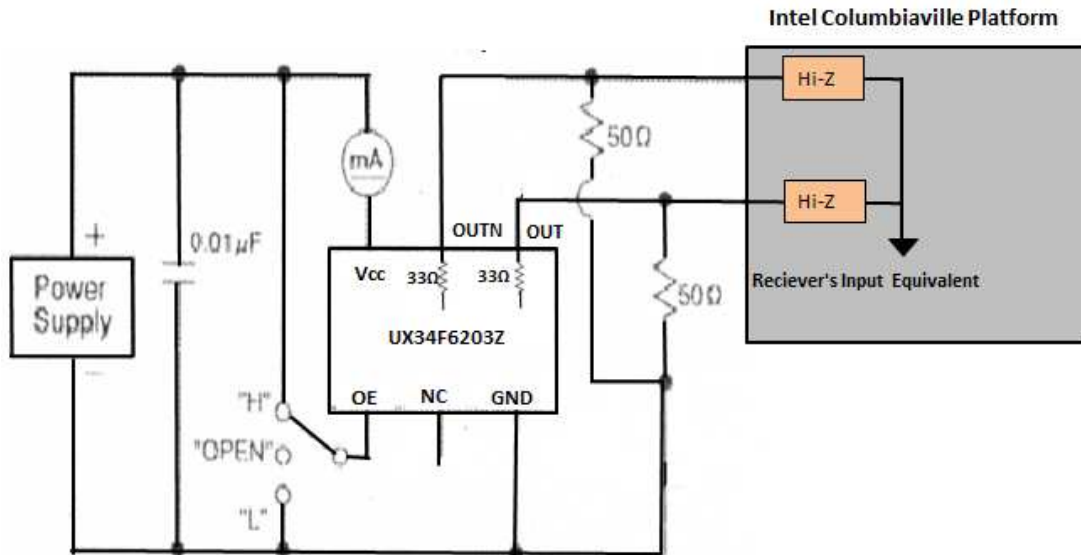
TYPE UX 3.2x2.5 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX34F6203Z

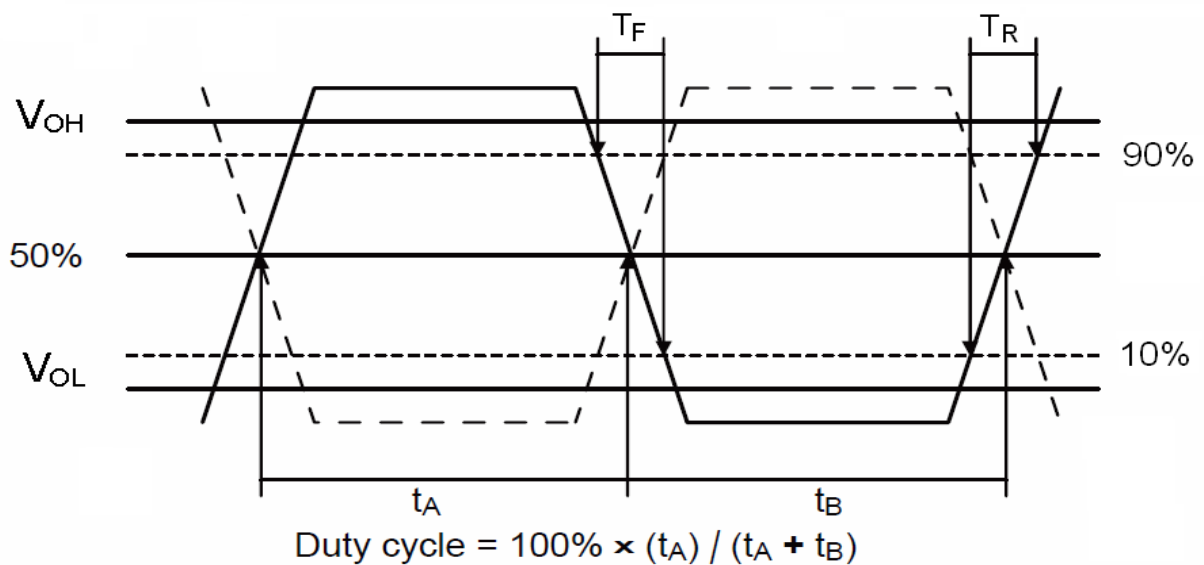
VER. C

27-Jul-18

TEST CIRCUIT



OUTPUT WAVEFORM



TYPE UX 3.2x2.5 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX34F6203Z

VER. C

27-Jul-18

RELIABILITY SPECIFICATIONS

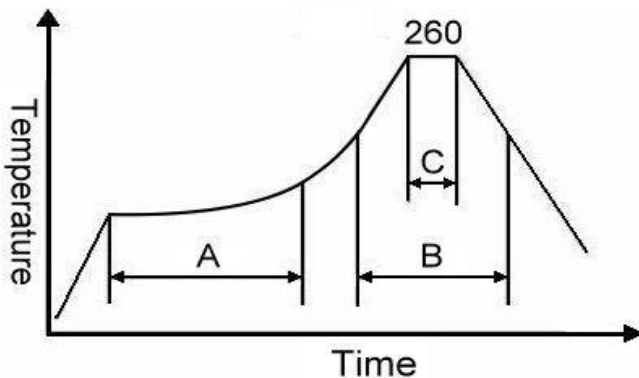
ENVIRONMENTAL:

- 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: 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, $R1=2 \times 10^{-8}$ atm cc/s
- f) SOLVENT RESISTANCE: MIL-STD-202, Method 215

SUGGESTED IR REFLOW PROFILE



Note:

	Stage	Temperature	Time
A	Preheat	150~200°C	60~120 Sec
B	Primary Heat	217°C	60~150 Sec
C	Peak	260°C	10 Sec

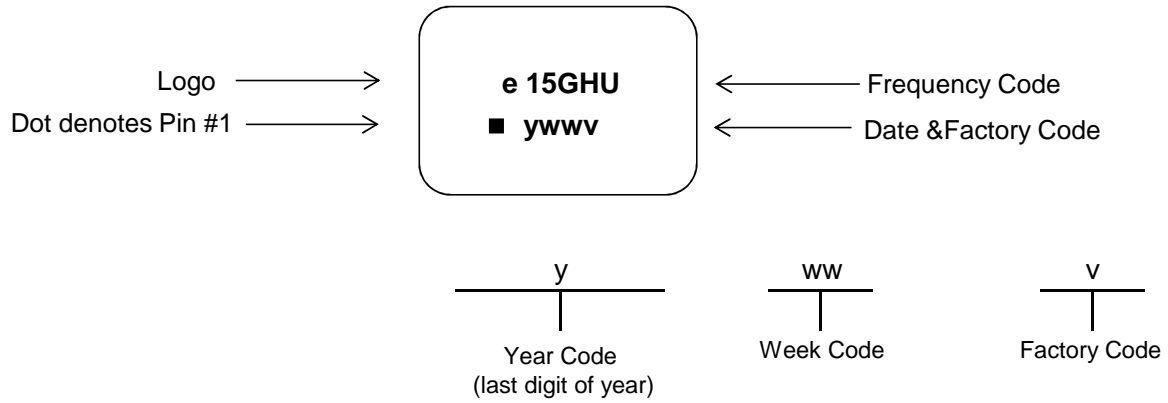
TYPE UX 3.2x2.5 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX34F6203Z

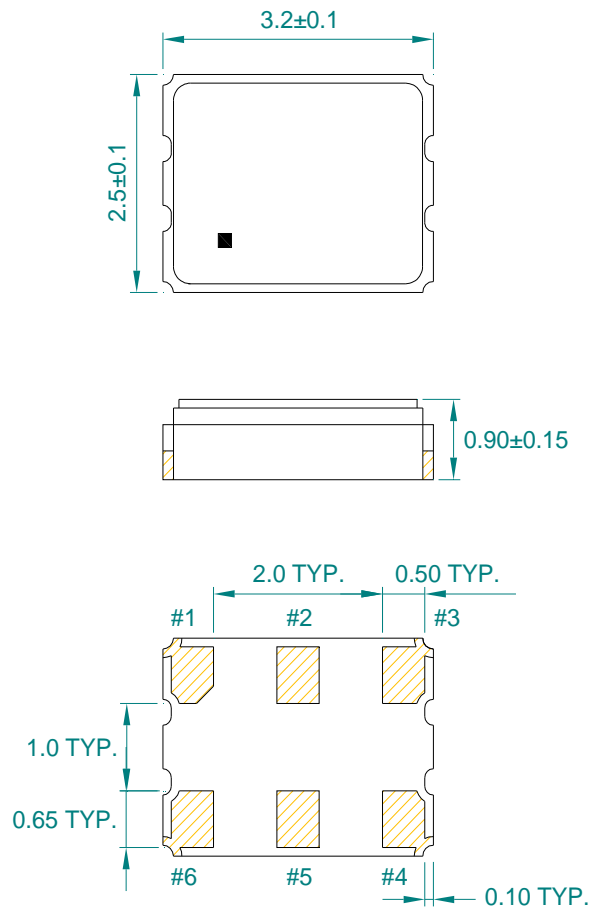
VER. C

27-Jul-18

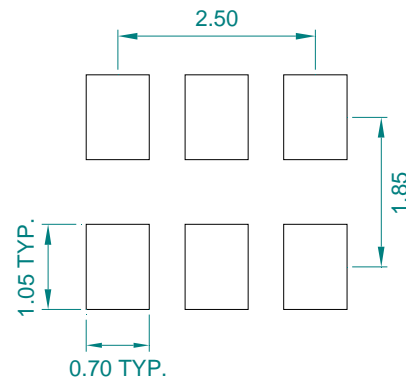
MARKING



MECHANICAL DRAWINGS (Scale:None. Dimensions are in mm.)



Recommended Land Pattern*



*External high-frequency power decoupling is recommended. (see test circuit for minimum recommendation). To ensure optimal performance, do not route traces beneath the package.

Pin	Function
1	OE
2	NC
3	V _{EE}
4	OUTPUT
5	OUTPUT N
6	V _{CC}

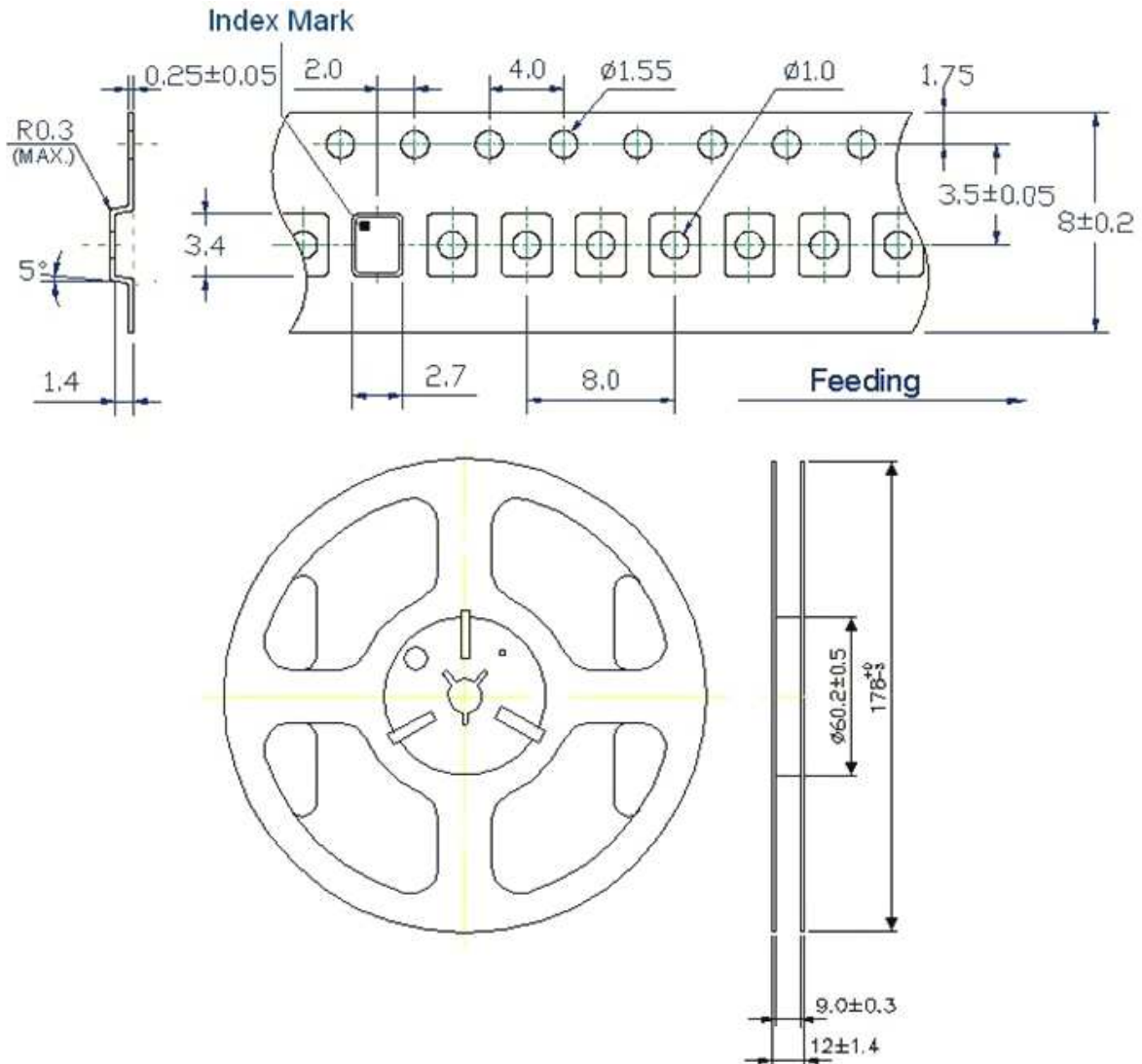
TYPE UX 3.2x2.5 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX34F6203Z

VER. C

27-Jul-18

TAPE&REEL



1. 230mm minimum leader 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.

DIODES
INCORPORATED

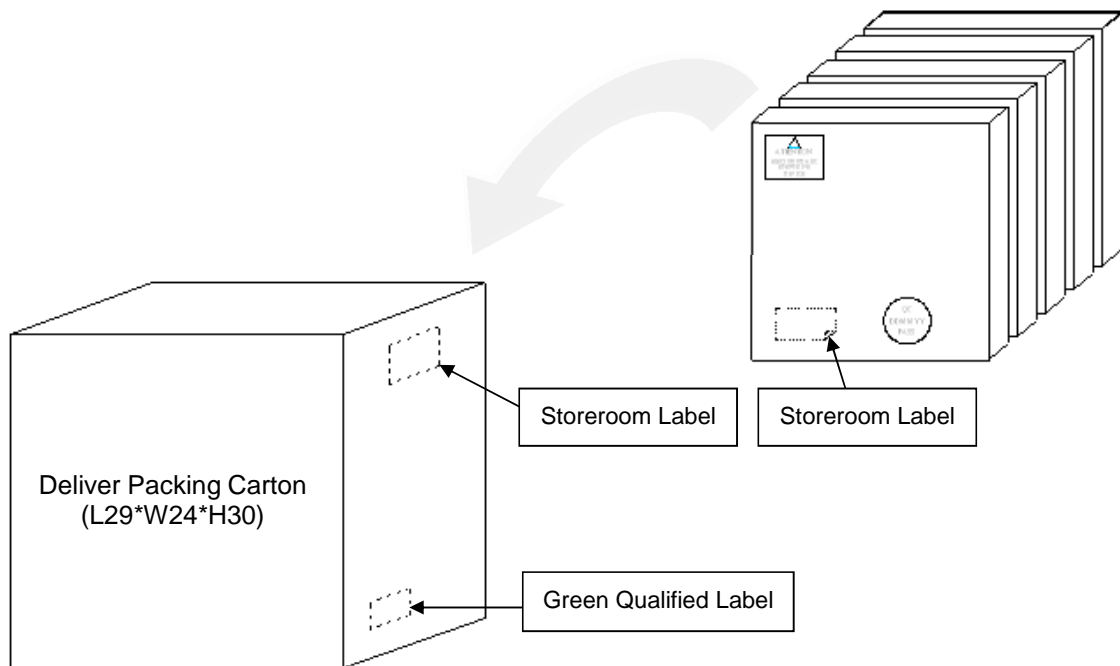
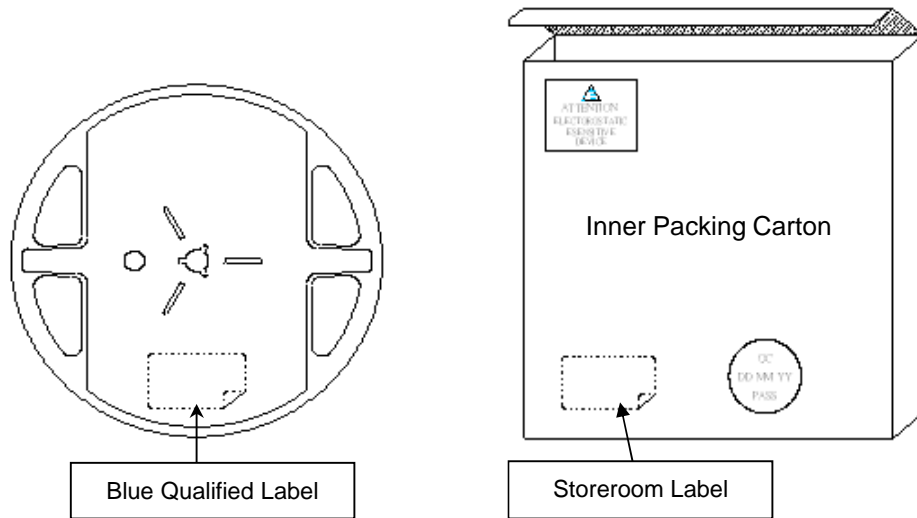
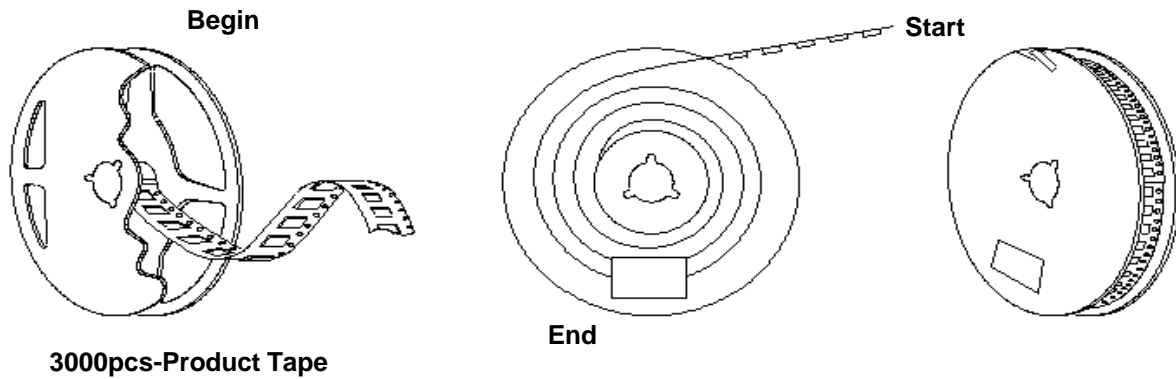
TYPE UX 3.2x2.5 SEAM SEALED CRYSTAL CLOCK OSCILLATOR

UX34F6203Z

VER. C

27-Jul-18

PACKING



单击下面可查看定价，库存，交付和生命周期等信息

[>>Diodes Incorporated\(达达科技\(美台\)\)](#)