

# **TCXO**

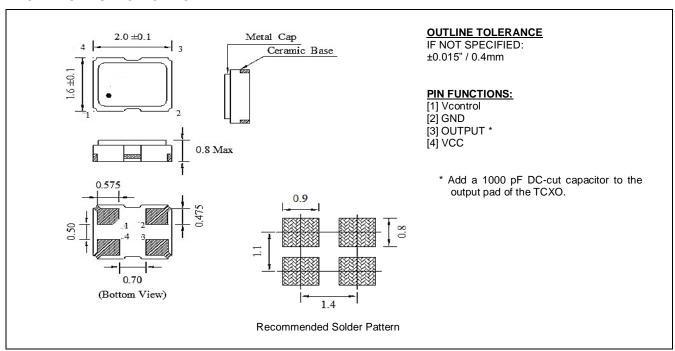
# RTV-2016DD333W-S-10.000-TR

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### ELECTRICAL SPECIFICATION

PARAMETER		SYMBOL	CONDITIONS	VALUE	UNIT
Nominal Frequency		fo	Vcc ±5%	10.000	MHz
Supply Voltage, nom.		Vcc	Vcc ±5%	3.3	VDC
Supply Current, max		Is	Vcc ±5%	2.0	mA
Operating Temperature Range		Ta		-40 ~ +85	°C
Storage Temperature Range		T(stg)	Absolute max	-40 ~ +95	°C
E 0. 1.111	vs. Temperature	Δf/fo(Ta	Reference to +25°±2°C (-40 ~ +85°C)	±2.0	ppm
Frequency Stability,	vs. Supply Voltage	$\Delta f/f_{\vee}$	Vcc ±5%	±0.2	ppm
max	vs. Load	$\Delta f/f_L$	Load ±10%	±0.2	ppm
Aging, max		∆f/fo(year)	Per year, @25°C	±1.0	ppm
Initial Frequency Calibration, max		fc	@25°C	±1.0	ppm
Output Level, Clipped Sine Wave		-	10 kΩ // 10 pF ±10%	0.8	$V_{P-P}$
Voltage Control Range, min/max		Vc	$V_{C} = 1.5 \pm 1.0 V$	±5 to ±10	ppm
Symmetry				40 ~ 60	%
Start-up time, max		ts	V <sub>OUT</sub> ≥ 90% V <sub>P-P</sub>	2.0	ms
Phase Noise, max			Δf=100 Hz	-110	dBc/Hz
			Δf=1 kHz	-130	dBc/Hz
			Δf=10 kHz	-140	dBc/Hz
			Δf=100 kHz	-145	dBc/Hz

# MECHANICAL SPECIFICATION

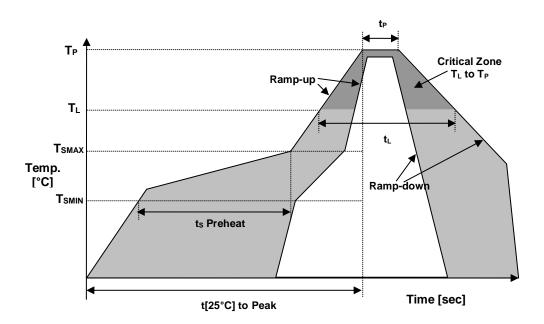


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### **■** REFLOW PROFILE



Reflow profile			
Temperature Min Preheat	T <sub>SMIN</sub>	150°C	
Temperature Max Preheat	T <sub>SMAX</sub>	200°C	
Time (T <sub>SMIN</sub> to T <sub>SMAX</sub> )	ts	60-180 sec.	
Temperature	TL	217°C	
Peak Temperature	T <sub>P</sub>	260°C	
Ramp-up rate	Rup	3°C/sec max.	
Ramp-down rate	R <sub>DOWN</sub>	6°C/sec max.	
Time within 5°C of Peak Temperature	t₽	10 sec.	
Time t[25°C] to Peak Temperature	t[25°C] to Peak	480 sec.	
Time	t <sub>L</sub>	60-150 sec.	

# ENVIRONMENTAL

PARAMETER	VALUE
MOISTURE SENSITIVITY LEVEL	1
REACH-SVHC	Compliant
RoHS	Compliant
TERMINATION FINISH	Au





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### MARKING

R10.00 •DD3w

x – Internal Production ID code

v – Year code

w - Week code

YEAR CODE		
Year	Code	
2011	1	
2012	2	
2013	3	
2014	4	
2015	5	
2016	6	
2017	7	
2018	8	
2019	9	

	ALPHA WEEK CODE TABLE				
Week	Code	Week	Code	Week	Code
1	а	19	s	37	K
2	b	20	t	38	L
3	С	21	u	39	М
4	d	22	V	40	N
5	е	23	W	41	0
6	f	24	Х	42	Р
7	g	25	У	43	Q
8	h	26	Z	44	R
9	i	27	Α	45	S
10	j	28	В	46	Т
11	k	29	С	47	U
12	1	30	D	48	V
13	m	31	Е	49	W
14	n	32	F	50	X
15	0	33	G	51	Υ
16	р	34	Н	52	Z
17	q	35			
18	r	36	J		

# APPROVAL

DRAWN BY:	LP, June 20, 2018
APPROVED BY:	JI, June 20, 2018
REVISION:	A, Initial Release

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