

Customer Code: \_\_\_\_\_

# DATASHEET

DAPU P/N: DPZ7516M000033AA

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Jack	David	William	
Date: 2022.06.15			

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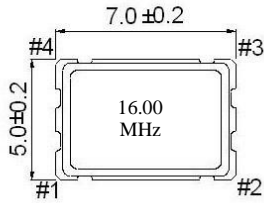
## 1、 Electrical Parameters

MODEL: DPZ7516M000033AA							
For Automotive							
No.	Parameters	SYM.	Electrical Spec.				Notes
			Min.	Typ.	Max.	Units	
1	Standard	-	Conforms to AEC-Q200				
2	Nominal Frequency	FL	16.00			MHz	
3	Oscillation Mode	-	Fundamental				
4	Frequency Stability(Overall)	-	-70		+ 70	$\times 10^{-6}$	Includes frequency tolerance@25°C and frequency stability VS.operating temperature range and voltage variance and load change and first year aging.
5	Operating Temperature	Topr	-40	~	+ 125	°C	
6	Storage Temperature	Tstg	-55	~	+ 125	°C	
7	Supply Voltage	V <sub>DD</sub>	2.97	3.3	3.63	V	
8	Input Current	I <sub>cc</sub>			15	mA	
9	Output waveform	-	CMOS				
10	Output Load	CL	15			pF	
11	Output Voltage High	V <sub>OH</sub>	90%			V <sub>DD</sub>	
12	Output Voltage Low	V <sub>OL</sub>			10%	V <sub>DD</sub>	
13	Rise/Fall Time	Tr、 Tf			5	ns	20%-80% V <sub>DD</sub> Level
14	Aging	-	-3		+ 3	$\times 10^{-6}$	First Year at 25°C
15	Tri-State Output Enable	-	70%			V <sub>DD</sub>	Pin 1, OE
16	Tri-State Output Disable	-			30%	V <sub>DD</sub>	Pin 1, OE
17	Duty Cycle	-	45	~	55	%	
18	Start-Up Time	Tstart			10	ms	Measured from the time V <sub>DD</sub> reaches its rated minimum value



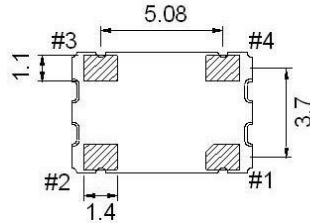
## 2、Mechanical Structure(mm)

[ TOP VIEW ]

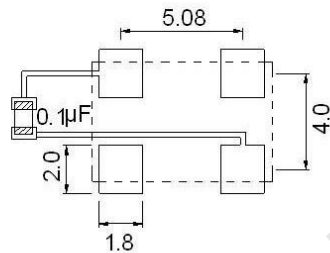
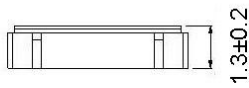


[ BOTTOM VIEW ]

Unit:mm



[ SIDE VIEW ]



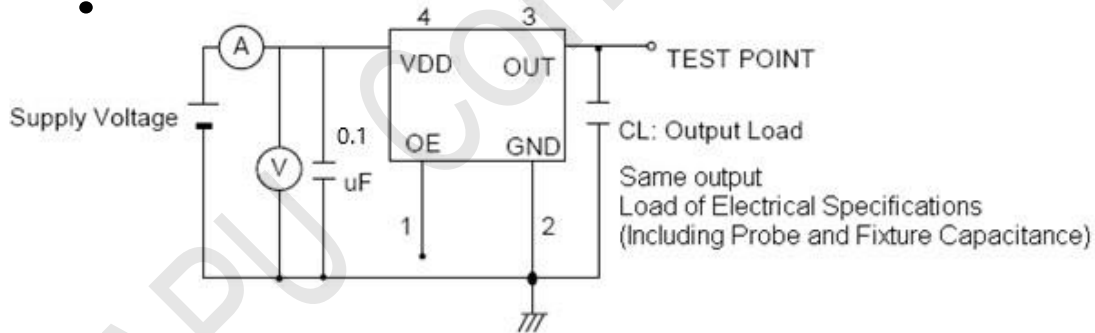
Recommended soldering pattern

Pin	Function
#1	Tri-State
#2	GND
#3	Output
#4	V <sub>DD</sub>

Pin Functions

\*To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between VDD and GND pads.

## 3、Test Circuit



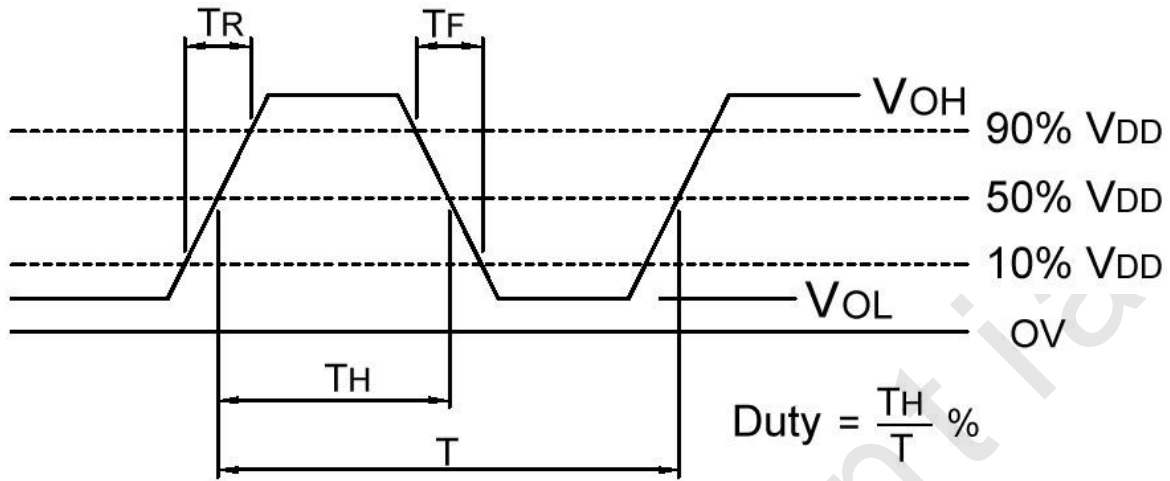
Control input (output enable/disable)

Logic 1 or open on pad 1: Oscillator output

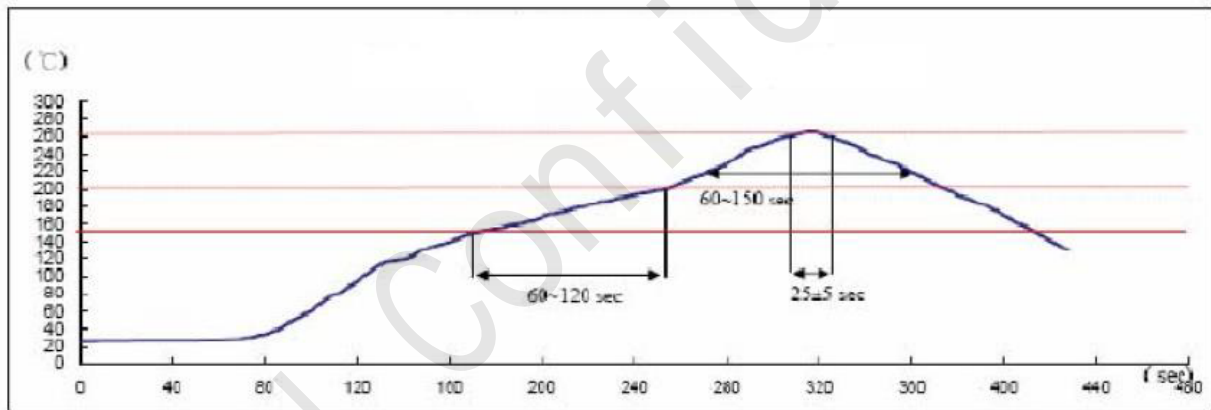
Logic 0 on pad 1 : Disable output to high impedance



#### 4、 Output Waveform(CMOS Load)



#### 5、 Reflow Soldering Curve (RoHS)



IR-Reflow Test

Reference Standard : JEDEC-STD 020

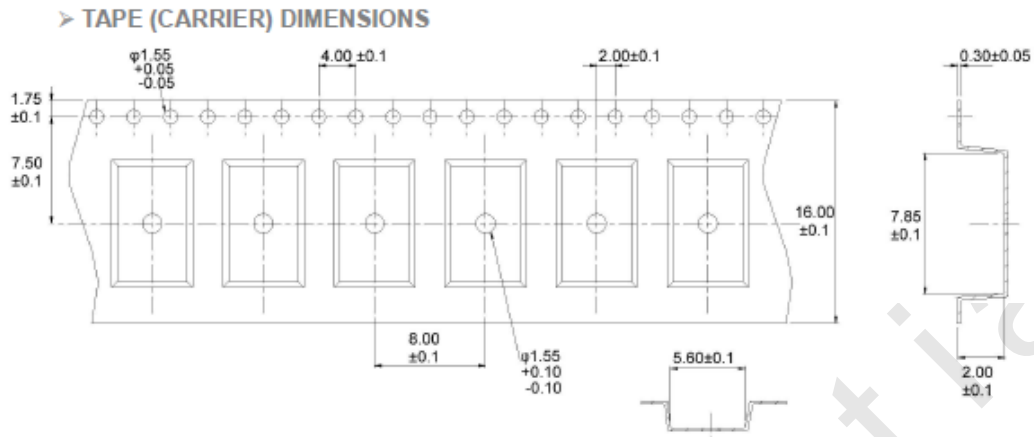
Test Conditions: Pre-heating : 150°C to 200 °C , 60~120 sec

Heating : 217 °C , 60~150 sec

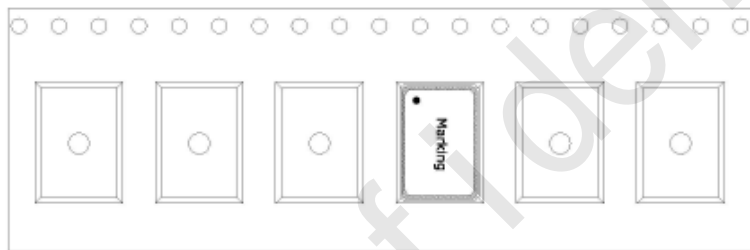
Peak Temperature : 260±5 °C , 25±5 sec



## 6、 Package: Tape & Reel (mm)



➤ THE DIRECTION OF PACKING



➤ REEL DIMENSIONS

