

Customer Code: _____

DATASHEET

DAPU P/N: DPX538M0000008AA

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Jack	David	William	
Date: 2023.05.11			

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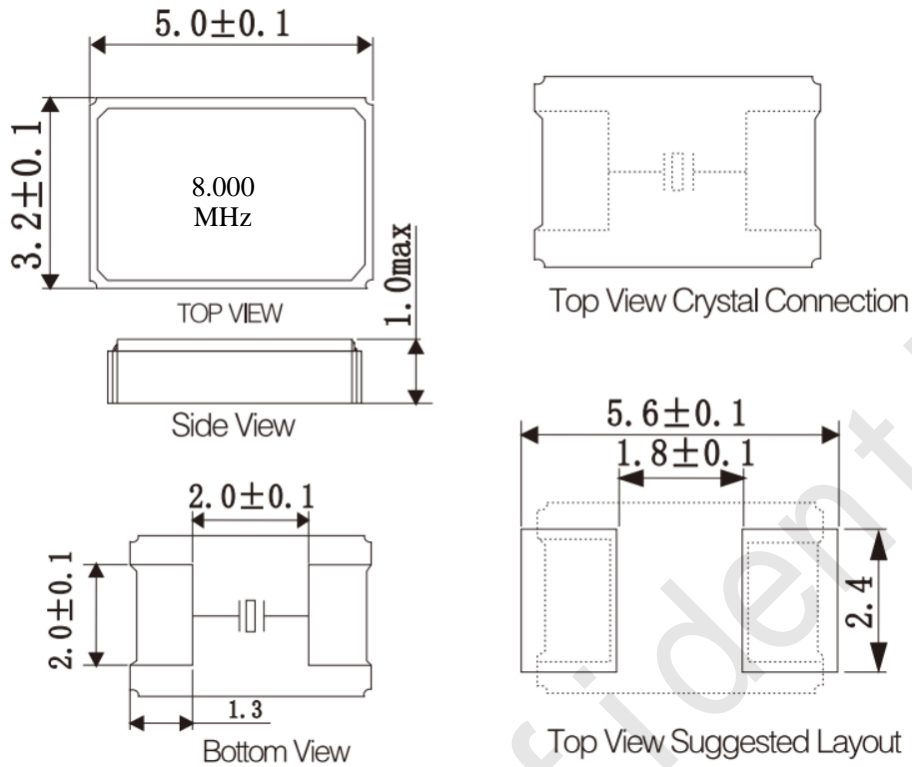


1、Electrical Parameters

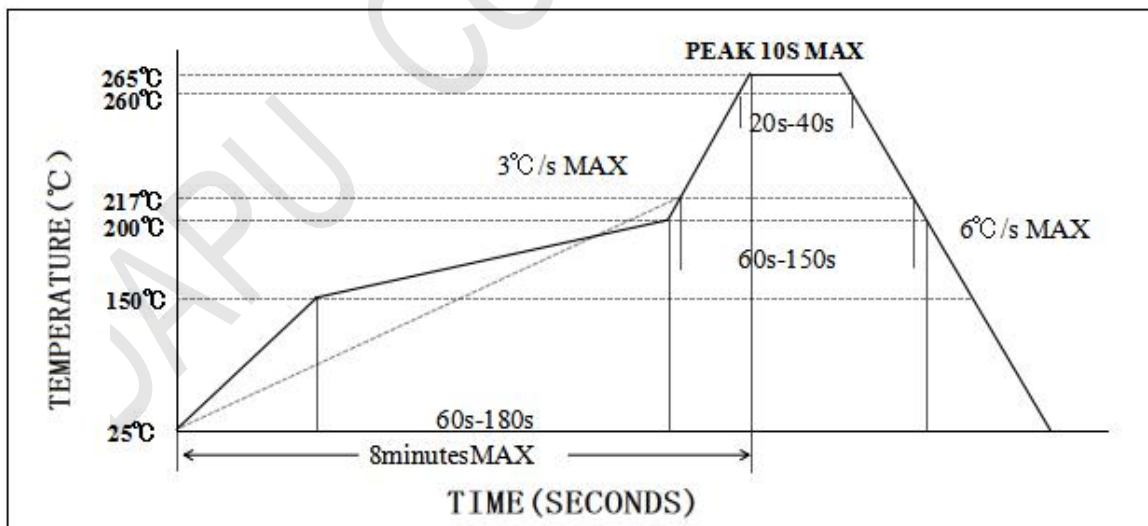
MODEL: DPX538M0000008AA							
For Automotive							
No.	Parameters	SYM.	Electrical Spec.				Notes
			Min.	Typ.	Max.	Units	
1	Standard	-	Conforms to AEC-Q200				
2	Nominal Frequency	FL	8.00			MHz	
3	Oscillation Mode	-	Fundamental				
4	Load Capacitance	CL	8			pF	
5	Frequency Tolerance	-	-10		+10	$\times 10^{-6}$	At 25°C
6	Frequency Stability	-	-150		+150	$\times 10^{-6}$	Over Operating Temperature Range (Reference 25°C)
7	Operating Temperature	Topr	-40	~	+150	°C	
8	Storage Temperature	Tstg	-55		+125	°C	
9	Drive Level	DL	1	100	500	μ W	
10	Equivalent Series Resistance	ESR			300	Ω	
11	Shunt Capacitance	-			5.0	pF	
12	Insulation Resistance	IR	500			M Ω	At DC 100V
13	Aging	-	-2		+2	$\times 10^{-6}$	First year at 25°C



2、Mechanical Structure(mm)

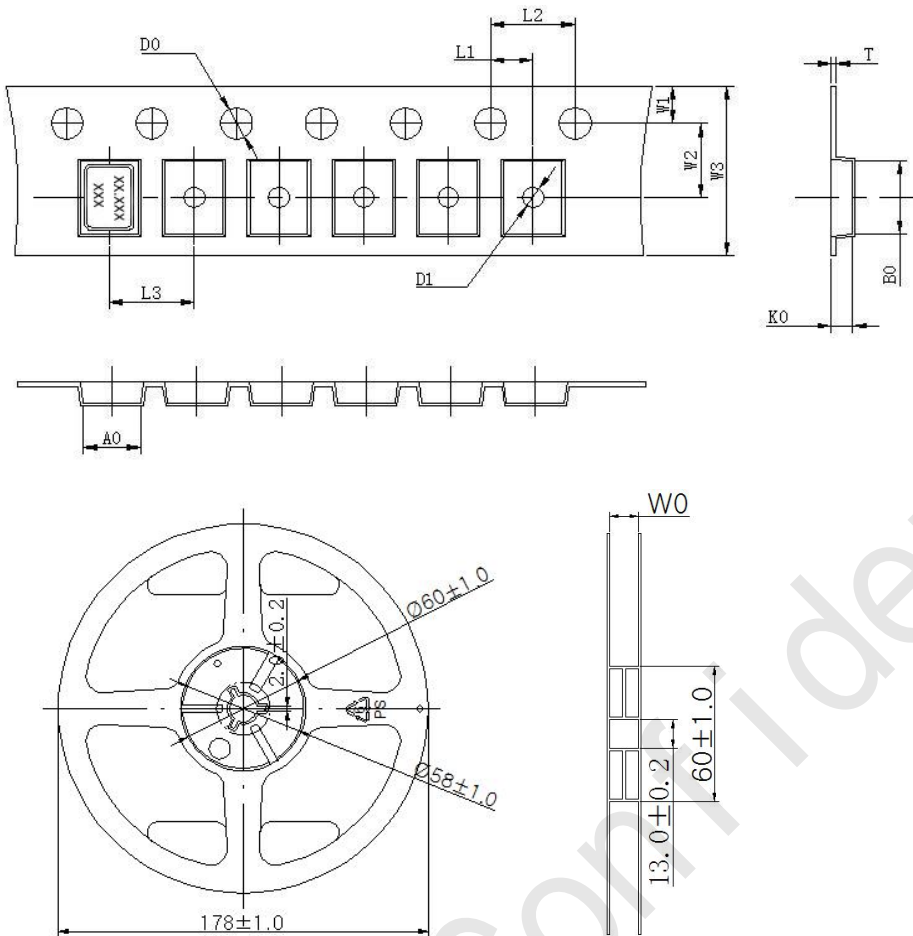


3、Reflow Soldering Curve(RoHS)





4、 Package: Tape & Reel (mm)



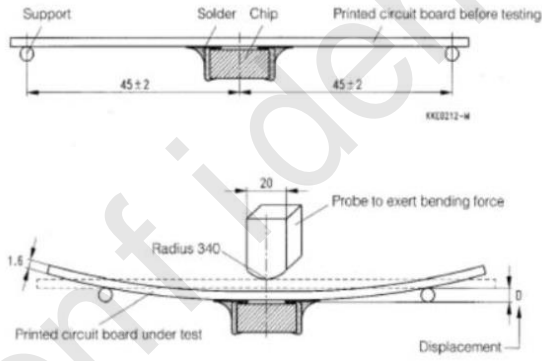
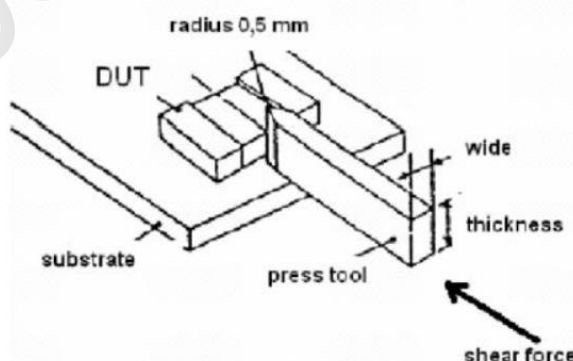
L1	2.00±0.1
L2	4.00±0.1
L3	8.00±0.1
D0	1.50±0.1
D1	1.50±0.1
W0	12.3±0.2
W1	1.75±0.1
W2	5.50±0.1
W3	12.0±0.1
A0	3.50±0.1
B0	5.30±0.1
K0	1.50±0.1
T	0.3±0.05

5、 Reliability Test Specification

5.1 Reliability Test (Reference AEC-Q200)

NO.	Test Items	Test Standard	Test Condition	Standard
1	High temperature storage	MIL-STD-202 Method 108	The crystal was placed at a temperature of 125°C ± 2°C for 1000 hours.	A、 C、 D
2	Temperature cycle	JESD22 Method JA-104	Crystal do 1000 cycles according to the table below temperature. 	A、 C、 D
3	Temperature and humidity	MIL-STD-202 Method 103	The crystal is placed for 1000 hours at a temperature of 85°C ± 2°C and a humidity of 85% Time.	A、 C、 D
4	shock	MIL-STD-202 Method 213	shock method:half sine wave 100G Duration:6ms	A、 C



			Direction:X, Y, Z Axial, 6 faces, 18 shocks in total.	
5	Vibration	MIL-STD-202 Method 204	Vibration frequency:10~2000Hz Vibration amplitude:1.5mm Scan time:20 min Directions:X, Y, Z (12 cycles in each of the three directions)	A、C
6	Resistance to soldering heat	MIL-STD-202 Method 210	Reflow soldering: Peak temperature:260±5℃, time: 10s±1s.	A、C、D
7	Solderability	J-STD-002	Soldering temperature:245℃±5℃ Immersion time:5 seconds±0.5 seconds Flux:Rosin Resin Methanol Solvent (1 : 4)	E
8	Panel bending	AEC-Q200-005	Apply pressure to the center of the product until it bends to a minimum of 2mm and keep 60±5 seconds. 	A、C
9	Terminal strength	AEC-Q200-006	Apply a force of 1.8Kg laterally for 60±1 seconds. 	A、C

5.2 Test judgment

Specification	
A	Frequency Variation: Within ±5ppm or meet customer specifications.
B	Frequency Variation: Within ±10ppm or meet customer specifications.
C	Resonant resistance (RR) variation: within ±20% or 5Ω (whichever is greater).
D	Test after 24±2 hours under normal temperature and humidity.
E	At least 95% of the immersed end is covered with new welding material.