



CUSTOMER APPROVAL SHEET

CUSTOMER :		
CUSTOMER P/N :		
DESCRIPTION :		
OUR ITEM :	CP160808T-601Y	
QUANTITY :	10 PCS	
DATE :	2023/05/08	

SPECIFICATION

	" ✓ "	CUSTOMER'S SIGNATURE	NOTE
FULL APPROVAL			
CONDITIONAL APPROVED			
REJECTED			

DRAWN BY	CHECKED BY	APPROVED BY
Alice	Nady	DEMI

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Revision History

Part No. : CP160808T-601Y

REV. No	V. No Revised Date Reason and Detail of Revision		Prepared	Checked	Approved
1.0	2023/5/8	First Edition	Alice	Nady	DEMI
				•	EP01D001





1.Features

- 1. Monolithic inorganic material construction.
- 2. Closed magnetic circuit avoids crosstalk.
- 3. Suitable for reflow soldering.
- 4. Shapes and dimensions follow E.I.A. spec.
- 5. Available in various sizes.
- 6.Excellent solder ability and heat resistance.
- 7. High reliability.
- 8.100% Lead(Pb) & Halogen-Free and RoHS compliant.

9.Low DC resistance structure of electrode to prevent wasteful electric power consumption.

2.Product Identification



3.Rating

- 1.Operating Temperature : 55°C ~ +125°C
- 2.Storage conditions : Under 25°C, Humidity 40% ~ 65%

4.Shape and Dimension



5.Recommended PC Board Pattern



Dimensions(mm)

Part No.	Α	В	С	D	L	G	Н
CD160909T 601V	1.60	0.80	0.80	0.30	21 21	0.80	0.60
CP1008081-0011	± 0.2	± 0.15	± 0.15	± 0.20	2.4 - 3.4	0.80	0.00

6.Electrical Characteristics

Test Item	ImpedanceDC ResistanceRated Current(Ω)(Ω)(mA)		Rated Current (mA)	Test Frequency
	600	0.2	1000	100MHz / 200mV
CF1000081-0011	± 25%	Max	Max	

Note

Rated current : Applied the current to coils, the temperature rise shall not be more than 30°C





7.Soldering and Mounting

1. Soldering

Mildly activated rosin fluxes are preferred. The terminations are suitable for re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

Note

1.If wave soldering is used ,there will be some risk.

2.Re-flow soldering temperatures below 240 degrees, there will be non-wetting risk.

1.1 Lead Free Solder Re-flow

Recommended temperature profiles for lead free re-flow soldering in Figure 1. (Refered to J-STD-020C)

1.2 Soldering Iron:

Products attachment with a soldering iron is discouraged due to the inherent process control limitations. If a soldering iron must be employed the following precautions are recommended. for Iron Soldering. 1.Preheat circuit and products to 150° C

- 2.Never contact the ceramic with the iron tip.
- 3.Use a 20 watt soldering iron with tip diameter of 1.0mm.
- $4.350^{\circ}C$ tip temperature (Max)
- 5.1.0mm tip diameter (Max)

6.Limit soldering time to 4~5sec.





TIME(sec.)

Note : Reflow times : 3 times max.



1.3 Solder Volume

Accordingly increasing the solder volume, the mechanical stress to product is also increased.

Exceeding solder volume may cause the failure of mechanical or electrical performance.

Solder shall be used not to be exceed as shown in right side:

Minimum fillet height = soldering thickness + 25% product height







Material Characteristic Curve

1.Impedance VS Frequency









Customer				Da	ata		2023	/5/29	
Description	CF	160808T-60	1Y	Qua	ntity		10	PCS	
Test Item	Z (0)	DCR		A (mm)	B (mm)	C (mm)	D (mm)		
	(<u>sz</u>)	0.2		(1111)	0.8	0.8	(1111)		
	750	0.2		1.0	0.0	0.0	0.5		
Lower	450	-		1.00	0.55	0.55	0.00		
Tolerance	25%	Max		0.2	0.00	0.00	0.10		
	2070 100MHz /200mV	IVIAA		0.2	0.15	0.15	0.2		
1	590	0 115		1.61	0.82	0.82	0 33		
2	588	0.119		1.60	0.80	0.02	0.00		
2	567	0.118		1.00	0.82	0.70	0.02		
3	578	0.120		1.55	0.02	0.79	0.00		
5	607	0.120		1.00	0.01	0.75	0.32		
6	612	0.121		1.62	0.83	0.82	0.33		
7	503	0.121		1.02	0.03	0.02	0.33		
7 	580	0.120		1.00	0.03	0.01	0.32		
0	612	0.115		1.01	0.02	0.01	0.34		
9	604	0.110		1.01	0.01	0.02	0.31		
	504.10	0.1170		1.01	0.01	0.02	0.33		
Max	612.00	0.179		1.000	0.010	0.807	0.324		
Min	567.00	0.1210		1.020	0.000	0.020	0.340		
Pango	J07.00	0.006		0.03	0.000	0.730	0.010		
	40 Tomp	20 +	? °C	0.03 R	0.03 Н	0.03	0.03	70 %	
Test Condition	Temp	20 ±	2 (Ν.			0010	10 /8	
Material	SP	EC			Test In	strumer	nt		
Core Test Wire Test Winding			1.2 : HP4291A 2.RDC : CHEN	RF HWA 502	2BC / HP4	4338B			
Note.			Configuration						
				, 	4		В		







Reliability and Test Conditions

1.Mechanical Performance

ITEM	Conditions	Specification
Flexure Strength	Test device shall be soldered on the substrate	The forces applied on the right conditions
	Substrate Dimension: 100x40x1.6mm	must not damage the terminal electrode
	Deflection: 2.0mm	and the ferrite.
	Keeping Time: 30sec	
Vibration	Test device shall be soldered on the substrate	The forces applied on the right conditions
	Oscillation Frequency: 10 to 55 to 10Hz for 1min	must not damage the terminal electrode
	Amplitude: 1.5mm	and the ferrite.
	Time: 2hrs for each axis (X, Y & Z), total 6hrs	
Resistance to Soldering	Pre-heating: 150°C, 1min	Appearance : No damage
Heat	Solder Composition: Sn/Pb = 63/37	More than 75% of the terminal electrode
	Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free)	should be covered with solder.
	Solder Temperature: 260 \pm 5 $^{\circ}$ C	Impedance : within ±20% of initial value.
	Immersion Time: 10±1sec	
Solder ability	Pre-heating: 150°C , 1min	The electrodes shall be at least 90%
	Solder Composition: Sn/Pb = 63/37	covered with new solder coating.
	Solder Temperature: 220±5°C	
	Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free)	
	Solder Temperature: 245±5°C (Pb-Free)	
	Immersion Time: 10±1sec	
Terminal Strength Test	Test device shall be soldered on the substrate.	160808 Series : ≧ 0.5 kg





Reliability and Test Conditions

2. Environmental Performance

ITEM	Conditions					Specification
Temperature Cycle	One cycle					Appearance : No damage
		Step	Temperature (°C)	Time(min)		Impedance : within±20% of initial value
		1	-55±3	30		
		2	25±2	3		
		3	125±3	30		
		4	25±2	3		
	Total : 100)cycles				
	Measured	after expo	osure in the room con	dition for 2	4hrs.	
Humidity Resistance	1.Tempera	ature : 40±	2°C			Appearance : No damage
	2.Relative	Humidity	90 ~ 95% / Time: 100	00hrs		Impedance : within±20% of initial value
	3.Measure	ed after ex	posure in the room co	ondition for		
	24hrs.					
High Temperature	1.Tempera	ature : 125	±3°C			Appearance : No damage
Resistance	2.Relative	Humidity	0%			Impedance : within±20% of initial value
	2.Applied	Current: R	ated Current / Time :	1000hrs		
	3.Measure	ed after ex	posure in the room co	ondition for		
	24hrs.					
Low Temperature	1.Temperature : -55±3°C					Appearance : No damage
Resistance	2.Applied	Applied Current: Rated Current / Time : 1000hrs				Impedance : within±20% of initial value
	3.Measure	ed after ex	posure in the room co	ondition for		
	24hrs.					





Packing Specifications

1.Reel Dimension



Dimensions(mm)

ltem	Α	В	С	D
160808	178.0	30.0	10.0	2.0

2. Taping Dimension



Dimensions(mm)

Size	Α	В	Т	W	Р	F	Таре Туре.
160909	1.10	1.85	0.95	8.0	4.00	3.50	D
160808	±0.1	±0.1	±0.05	±0.2	±0.1	±0.05	D

3. Tearing Off Force

The force for tearing off cover tape is 10 to 60 grams in the arrow direction.



4.Packaging Quantity

Size	Chip / Reel	Inner Box	Carton
160808	4,000 PCS	20,000 PCS	200,000 PCS