

1 Features

- 1) Custmomizable;
- 2) High Withstanding Voltage, High rated current;
- 3) High-density ceramic, ultra-low ESR、ultra-high stability.

2 Applications

Power Supply and Matching Network of Semiconductor Manufacturing, RF Amplifier and Filtering Network of Broadcast and RF Power Circuits of Medical Devices.

3 How to order

MQ	V	10	02	1	3838	M7G	3E	102	F	N		20	TN
Product type	Configur ation Code	Chip Series	Number of Caps	Termin ation	Case Size	TCC	Rated V.	Nominal Capacitance	Capacit ance Tolerance	N: No marking X: With marking	C: Type of coating blank: no coating	The cap. value which Xin⑩ stands for. NoX nothing here	Magnetic or not
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭

- ① Product type: MQ ;
- ② Product configuration code: V: parallel; Y: series; Z: parallel /series
- ③ Product series code: 10、50; consult related series in this catalogue for more information
- ④ Number of Cap.: 01~09 stands for 1 pcs ~9 pcs, 10 stands for 10 pcs;
- ⑤ Termination: 1. silver coated copper 2. silver 3.PCB 4. copper;
- ⑥ Case size: 1111、2525、3838;
- ⑦ Temperature coefficient:

Code	Temperature coefficient	Working temperature
M7G	(100±30) ppm/°C	-55°C ~125°C
C0G	(0±30)ppm/°C	-55°C ~125°C

⑧ Rated Voltage

No.	Code	Voltage	No.	Code	Voltage	No.	Code	Voltage
1	1H	50 V	7	2H	500V	13	3E	2500V
2	2A	100V	8	2J	600V	14	3F	3000V
3	2C	150V	9	2K	800V	15	3V	3600V
4	2D	200V	10	3A	1000V	16	3H	5000V
5	2E	250V	11	3C	1500V	17	3L	7200V
6	2F	300V	12	3D	2000V			

⑨ Nominal Capacitance Value

Based on customers' requirements

Unit is pF ;

Type 1:

EIA Capacitance code in pF.1st two digit are significant figures of capacitance; 3rd digit denotes number of Zeros;

For examples:302=3000pF ;

Type 2:

For CAP < 10pF,R stands for decimal, For example1R5 stands for 1.5 pF in capacitance;

Type 3:

For capacitance value requiring more than 3 digits, the capacitance code consists of two significant digits and an X, where X is separately defined in the latter part of the part number. For example, MQV100233838M7G3V15XGX5 stands for 155pF,MQV100233838M7G3V13XGX20 stands for 1320pF.

⑩ Capacitance Tolerance

Code	Tolerance (pF)	Code	Tolerance (%)	Code	Tolerance (%)
B	± 0.1	F	± 1	K	± 10
C	± 0.25	G	± 2	M	± 20
D	± 0.50	J	± 5	/	/

⑪ Marking

N: No marking X: Marking;

⑫ Coating

C: Coating type Blank:No coating;

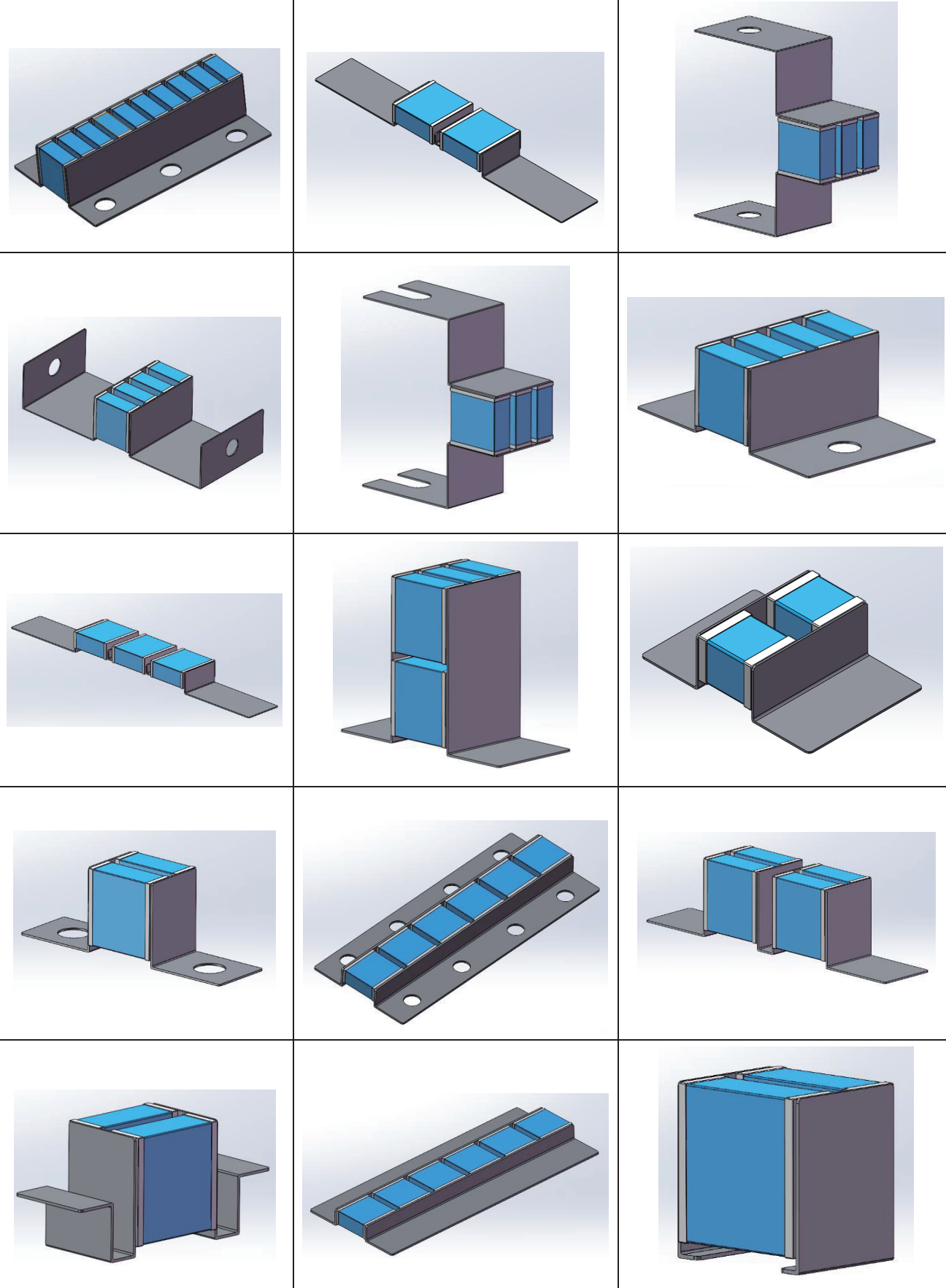
⑬ Capacitance code

If the last digit of ⑩ is X , it is what X stands for, for example:
MQV100233838M7G3V15XGX5 stands for 155pF;
MQV100233838M7G3V13XGX20 stands for 1320pF;
MQV100233838M7G3V12XGX 22.5 stands for

⑭ Magnetic or Non-magnetic

TN: Non-magnetic(silver/copper/tin)
Blank: Magnetic termination(silver/nickel/tin)

4 Typical Mechanical Configurations



5 Electrical Specifications&Test Conditions

No.	Items	Requirements	Test Conditions
1	Capacitance value/ Dissipation Factor	Dissipation Factor: $C_R \geq 50\text{pF}, \tan\delta \leq 0.15\%$; $5\text{pF} < C_R < 50\text{pF}, \tan\delta \leq 1.5$ $(150/C_R + 7) \times 10^{-4}$; $C_R \leq 5\text{pF}$, test free.	Test Frequency: 1MHz±50kHz ($C \leq 1000\text{pF}$) 1kHz±50Hz ($C > 1000\text{pF}$) Test Voltage: $(1.0 \pm 0.2) V_{rms}$
2	Insulation Resistance	At room temperature and rated D.C. working voltage, $\geq 10^5 M\Omega$	Rated Voltage or 500V (whichever is lower), 1min±5s
3	Dielectric Withstanding Voltage	No breakdown, flashover or visible damages	$U_R > 1250V$, $1.2 U_R$; $500V < U_R \leq 1250V$, $1.5 U_R$; $U_R \leq 500V$, $2.5 U_R$ Endure 5s±1s
4	Temperature Coefficient	M7G: $(100 \pm 30)\text{ppm}/^\circ\text{C}$ C0G: $(0 \pm 30)\text{ppm}/^\circ\text{C}$	Working Voltage: $-55^\circ\text{C} \sim 125^\circ\text{C}$
5	Operating Temperature	$-55^\circ\text{C} \sim 125^\circ\text{C}$	---