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(TCPSEH)
High Current Common Mode Chokes

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Product Introduction

Token newly released Common Mode Choke (TCPSEH) which handles currents up to 8.0 amps.

Features :

- A wide range of SMD package design, 7.0 × 6.0 × 3.8 , 9.0 × 7.0 × 4.8 , 12.0 × 10.8 × 6.4.
- Wire wound constructure common mode choke.
- With best EMI suppression effect high impedance.
- Very high rated current and low RDC.

Applications :

- Preventive measure against common mode noise, radiation emissions from power line or else.
- Wireless charging and power device design.
- Best for high current circuit such as car.

Comprehending the distinction between common mode signals and differential mode signals is very essential as we have to understand what the circuit requires to lessen noise.

How can we determine if the noise is differential or common mode? One method to test whether the issue is common mode or differential mode is always to fasten a snap cable ferrite towards the cable under consideration. By attaching the snap cable ferrite, we must make sure that If there's a noticable difference within the decrease in noise, the issue is common mode. Otherwise, then there's a differential problem. But bear in mind that within the cable are generally wires incorporated, towards and backwards the burden.

Common mode chokes are utilized to reduce a particular kind of electrical noise referred to as Common Mode Noise. They are also known as Current Compensated chokes or Current Cancellation chokes. Common mode chokes (TCPSEH) work nicely in applications like AC/Electricity power supplies (lines with large current movement) and signal lines, where distortion from the signal can create problems.

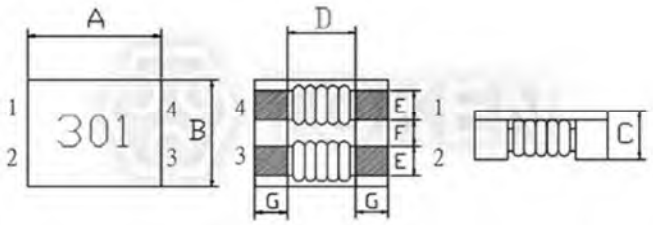
To precisely decide which common mode will support your requirements, here we use Nickel Zinc for wideband and greater frequency applications and Manganese Zinc for lower bandwidth and frequency applications. Token Common Mode Choke (TCPSEH) taking the advantage of Manganese Zinc and Nickel Zinc materials booms frequency up to higher 100 megahertz side.

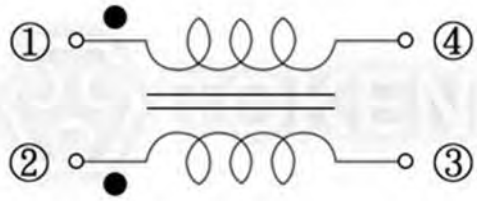
Token will also produce devices outside these specifications to meet customer requirements, with comprehensive application engineering and design support available for customers worldwide. Please contact our sales or link to Token official website “SMD Balun Transformers” for more information.

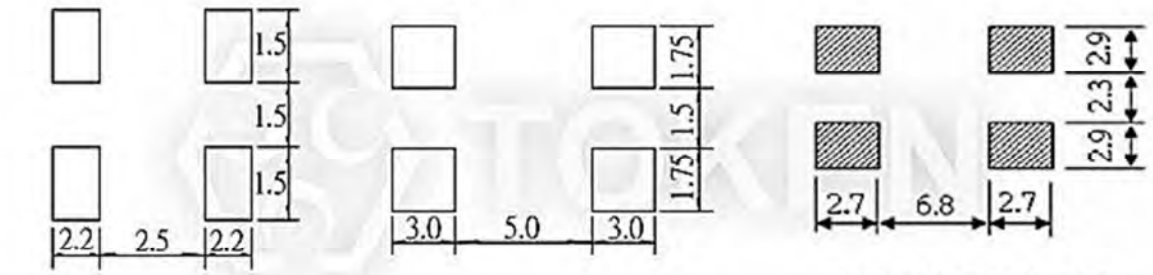
Config. & Dim.

Configurations & Dimensions (TCPSEH) Unit: mm

SIZE CODE	A	B	C	D	E	F	G
TCPSEH-7060	7.0±0.5	6.0±0.5	3.8Max.	3.5REF	1.5±0.2	1.5±0.2	1.75±0.2
TCPSEH-9070	9.0±0.5	7.0±0.5	4.8Max.	5.7REF	1.5±0.2	2.0±0.2	1.70±0.2
TCPSEH-1211	12.0±0.5	10.8±0.5	6.4Max.	7.0REF	2.7±0.2	2.5±0.2	2.5±0.2





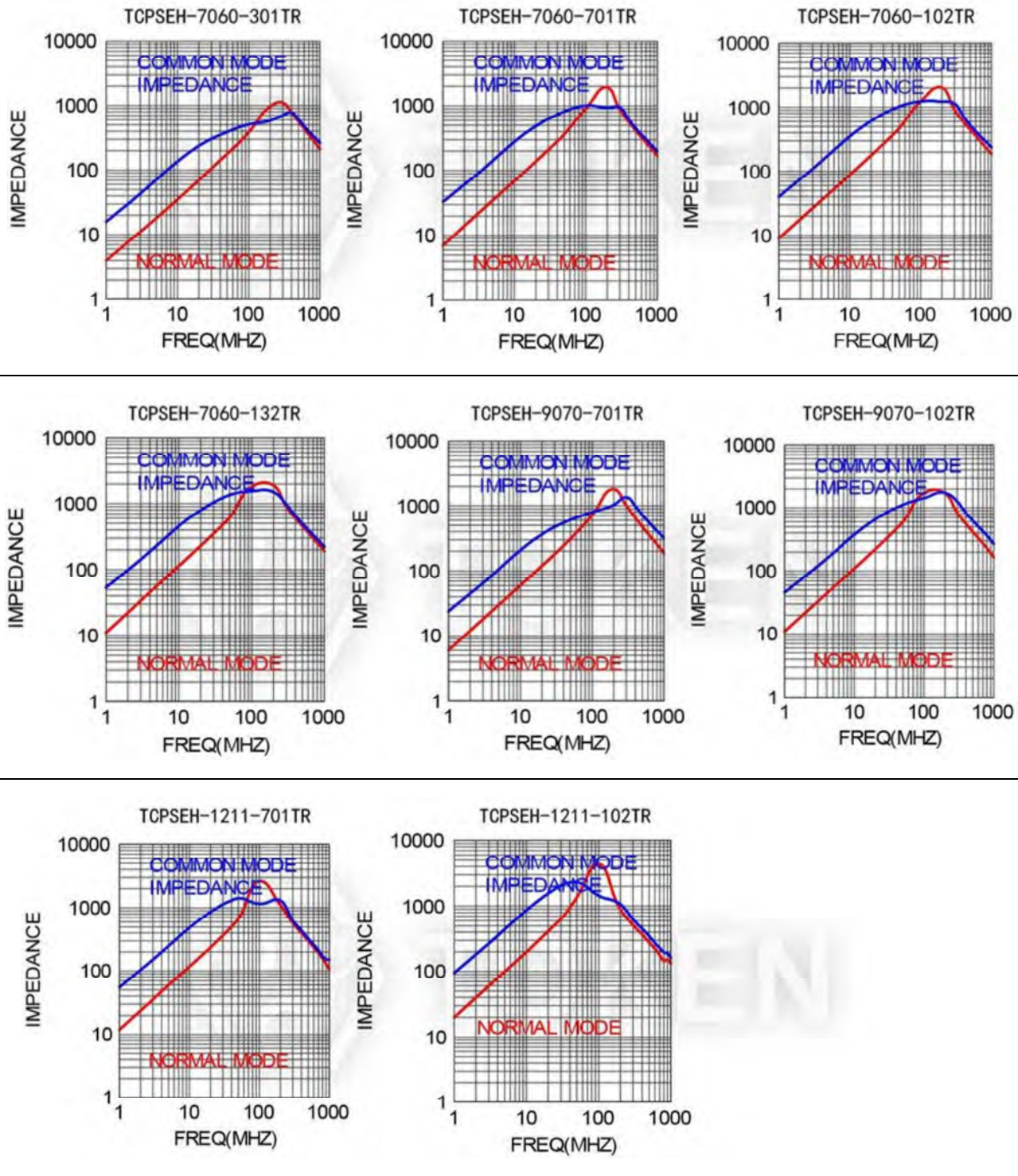


Electrical Characteristics

Electrical Characteristics (TCPSEH)

Part Number	Impedance (Ω) Min. 100MHz	DC Resistance (mΩ) Max.	Rated Current (A) Max.	Rated Voltage V Max.	Insulation Resistance (mΩ) Min.
TCPSEH-7060-301TR	225	10.0	5.0	80	10
TCPSEH-7060-701TR	500	15.0	4.0	80	10
TCPSEH-7060-102TR	800	17.0	3.0	80	10
TCPSEH-7060-132TR	910	21.0	2.5	80	10
TCPSEH-9070-701TR	500	10.0	5.0	50	10
TCPSEH-9070-102TR	750	13.0	4.0	50	10
TCPSEH-1211-701TR	500	6.0	8.0	125	10
TCPSEH-1211-102TR	750	14.0	6.0	125	10

Impedance VS Frequency (TCPSEH)



Order Codes

Order Codes (TCPSEH)

TCPSE	H	-	7060	-	301	TR

Part Number	Shielding Type		Dimensions (mm)		Impedance	Package	
TCPSE	H	Shielding	7060	7.0×6.0×3.8	Reference function specification table	P	Bulk
			9070	9.0×7.0×4.8		TR	Taping Reel
			1211	12.0×10.8×6.4			

General Information

Applications of Baluns

In a **RF balun transformer**, one pair of terminals is balanced, that is, the currents are equal in magnitude and opposite in phase. The other pair of terminals is unbalanced; one side is connected to electrical ground and the other carries the signal. Balun transformers can be used between various parts of a wireless or cable communications system. Some common applications denotes as following:

- Television receiver (Balanced) - coaxial cable network or Coaxial antenna system (Unbalanced)
- FM broadcast receiver (Balanced) - Coaxial antenna system (Unbalanced)
- Dipole antenna (Balanced) - Coaxial transmission line (Unbalanced)
- Parallel-wire transmission line (Balanced) - Coaxial transmitter output, or Coaxial receiver input (Unbalanced)

Token's baluns provide impedance transformation in addition to conversion between balanced and unbalanced signal modes. Most television and FM broadcast receivers are designed for 300-ohm balanced systems, while coaxial cables have characteristic impedances of 50 or 75 ohms. Impedance-transformer baluns with larger ratios are available and used to match high-impedance balanced antennas to low-impedance unbalanced wireless receivers, transmitters, or transceivers.