Product Introduction

Token (TCSG) is capable of handling noise in larger current sets for a 5 A class.

Features :

- High impedance for common mode noise and low impedance for differential mode signal.
- Wide band or sharp type impedance cure available.
- Large rated current available.
- SMD or DIP available.

Applications :

- Prevention of common mode noise on signal Lines and power lines for computer related or electronic products.

Some common mode choke coils are applied in circuits linked to AC power lines (commercial power lines), like the primary side of switching power supplies. Common mode choke coils utilized in these locations are frequently known as "line filters".

These common mode choke coils are utilized along with over the line capacitors (X-capacitors) and line bypass capacitors (Y-capacitors), and are utilized to prevent noise generated through the secondary side circuit from dripping towards the primary side, and also to prevent noise generated through the power circuit from getting away through the cord.

Common mode chokes and Line bypass capacitors remove common mode noise, while over-the-line capacitors remove differential mode noise. Growing the capacitance of a line bypass capacitor causes elimination of lower frequency common mode noise, however the chance of current leaking to the ground expands along with the capacitance, to ensure the capacitance need to be detained to a certain value or less.

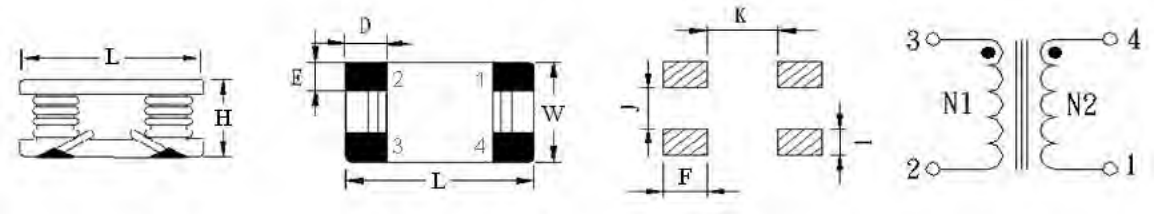
That is why, common mode choke coils are mostly employed in the low-frequency selection that can not be insured by line bypass capacitors. Additionally, the application of normal mode choke coils are able to provide enhanced differential mode noise removal results in some instances.

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.

Characteristics & Dim.

Characteristics & Dimensions (TCSG) Unit: mm

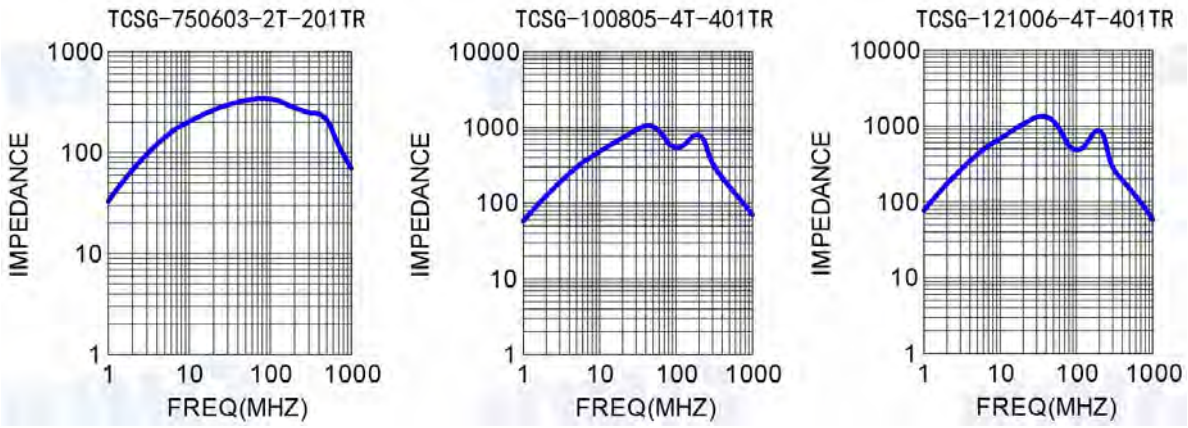
Part Number	L	W	H	D	E	F	I	J	K	BASE	WINDING	Z at 100MHz (Ω) Min.	RATED CURRENT (mA)	RDC (Ω) Max.
TCSG -750603	7.5±0.3	6.0±0.5	3.2±0.3	2.5	1.5	3.1	2.4	1.0	1.5	SMD-4P	φ0.35×2.5TS×2	200	2000	0.020
TCSG -100805	10.6 max	8.7 max	5.0±0.5	2.5	2.1	4.2	3.0	2.0	3.6	SMD-4P	φ0.55×4.5TS×2	400	4000	0.045
TCSG -121006	12.0±0.5	10.0±0.5	6.0±0.5	3.5	2.0	4.75	4.5	3.0	4.5	SMD-4P	φ0.50×4.5TS×2	400	5000	0.025



Common mode filter (TCSG) Configurations diagram

TCSG Graph

Typical Characteristics Graph (TCSG)



Order Codes

Order Codes (TCSG)

TCSG	-	121006	-	4T	-	401	TR

Part Number
TCSG

Dimensions	
750603	7.5×6.0×3.2
100805	10.6×8.7×5.0
121006	12.0×10.0×6.0

Core structure
2T
4T

Impedance(Ω)	
201	200Ω
401	400Ω

Package	
P	Bulk
TR	Taping Reel

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.