

Wire-wound SMD Common Mode Choke-TRCM Series

This Wire-wound SMD Common Mode Choke features compact thin design, mini size and high integration. It provides high common-mode impedance in high frequency range, effectively suppressing high-speed line common-mode noise and improving system anti-interference ability.



Features

- High common-mode impedance at high frequency for excellent noise suppression.
- Compact, small size, thin profile.
- Lead-free, halogen-free, RoHS compliant.

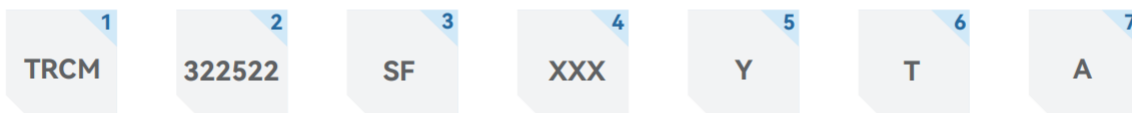
Applications

- Power switches & servers
- Telecom applications
- USB communication
- LCD panel link

Operating Temp

- -40°C~+125°C

Product Identification



1	Product Symbol
TRCM	Common mode choke

2	External Dimensions(mm)
121008	1.2*1.0*0.8
160811	1.6*0.8*1.1
201212	2.0*1.2*1.2
252012	2.5*2.0*1.2
321618	3.2*1.6*1.8
322522	3.2*2.5*2.2
453228	4.5*3.2*2.8

3	Internal Code
SF	Ferrite

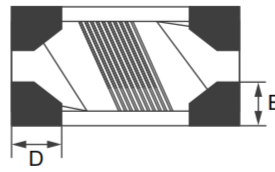
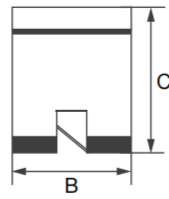
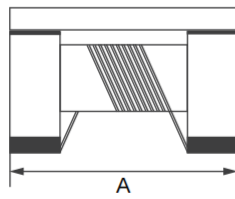
4	Nominal Impedance
200	20Ω
201	200Ω
202	2000Ω

5	Tolerance
Y	±25%

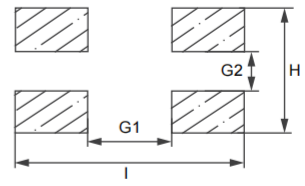
6	Packing
T	Tape Carrier Package

7	Internal Code
A	Standard

Shape and Dimensions



Recommended pattern



Dimensions

Unit:mm

Series	A	B	C	D	E	H	I	G1	G2
TRCM121008SF	1.2±0.2	1.0±0.2	0.8±0.1	0.33Typ.	0.36Typ.	1.00	1.55	0.5	0.30
TRCM160811SF	1.6±0.2	0.8±0.2	1.1±0.2	0.30Typ.	0.35Typ.	0.85	1.90	0.7	0.25
TRCM201212SF	2.0±0.2	1.2±0.2	1.2±0.2	0.50Typ.	0.50Typ.	1.20	2.60	1.2	0.40
TRCM252012SF	2.5±0.2	2.0±0.2	1.2±0.2	0.45Typ.	0.60Typ.	2.00	3.20	1.2	0.60
TRCM321618SF	3.2±0.2	1.6±0.2	1.8±0.2	0.60Typ.	0.60Typ.	1.60	3.70	2.2	0.50
TRCM322522SF	3.2±0.2	2.5±0.2	2.2±0.2	0.75Typ.	0.90Typ.	2.50	3.70	2.0	0.60
TRCM453228SF	4.5±0.2	3.2±0.2	2.8±0.2	1.00±0.1	1.20±0.1	3.80	4.80	2.5	0.70

Specification

TRCM121008SF Series

Part Number	Common mode Impedance	DC Resistance	Rating Current	Rated Voltage	Insulation Resistance
	Z(Ω)@100MHz	DCR(mΩ)	I _{rms} (mA)	V(Vdc)	IR(MΩ)
	±25%	Max.	Max.	Max.	Min.
TRCM121008SF200Y TA	20	120.00	450.00	20.00	10.00
TRCM121008SF350Y TA	35	160.00	430.00	20.00	10.00
TRCM121008SF450Y TA	45	160.00	430.00	20.00	10.00
TRCM121008SF600Y TA	60	200.00	400.00	20.00	10.00
TRCM121008SF900Y TA	90	230.00	400.00	20.00	10.00
TRCM121008SF161Y TA	160	300.00	350.00	20.00	10.00
TRCM121008SF201Y TA	200	400.00	300.00	20.00	10.00
TRCM121008SF301Y TA	300	600.00	250.00	20.00	10.00

TRCM160811SF Series

Part Number	Common mode Impedance	DC Resistance	Rating Current	Rated Voltage	Insulation Resistance
	Z(Ω)@100MHz	DCR(mΩ)	I _{rms} (mA)	V(Vdc)	IR(MΩ)
	±25%	Max.	Max.	Max.	Min.
TRCM160811SF250Y TA	25	100.00	500.00	20.00	10.00
TRCM160811SF600Y TA	60	170.00	400.00	20.00	10.00
TRCM160811SF900Y TA	90	250.00	350.00	20.00	10.00
TRCM160811SF121Y TA	120	250.00	350.00	20.00	10.00
TRCM160811SF141Y TA	140	250.00	350.00	20.00	10.00
TRCM160811SF221Y TA	220	300.00	300.00	20.00	10.00

TRCM201212SF Series

Part Number	Common mode Impedance	DC Resistance	Rating Current	Rated Voltage	Insulation Resistance
	Z(Ω)@100MHz	DCR(m Ω)	I _{rms} (mA)	V(Vdc)	IR(M Ω)
	$\pm 25\%$	Max.	Max.	Max.	Min.
TRCM201212SF300Y TA	30	100.00	550.00	50.00	10.00
TRCM201212SF500Y TA	50	150.00	550.00	50.00	10.00
TRCM201212SF750Y TA	75	200.00	500.00	50.00	10.00
TRCM201212SF900Y TA	90	200.00	450.00	50.00	10.00
TRCM201212SF101Y TA	100	200.00	450.00	50.00	10.00
TRCM201212SF121Y TA	120	250.00	450.00	50.00	10.00
TRCM201212SF161Y TA	160	250.00	450.00	50.00	10.00
TRCM201212SF181Y TA	180	250.00	400.00	50.00	10.00
TRCM201212SF221Y TA	220	250.00	400.00	50.00	10.00
TRCM201212SF261Y TA	260	400.00	350.00	50.00	10.00
TRCM201212SF301Y TA	300	400.00	350.00	50.00	10.00
TRCM201212SF371Y TA	370	450.00	350.00	50.00	10.00
TRCM201212SF481Y TA	480	450.00	300.00	50.00	10.00
TRCM201212SF501Y TA	500	550.00	300.00	50.00	10.00
TRCM201212SF601Y TA	600	550.00	300.00	50.00	10.00
TRCM201212SF681Y TA	680	650.00	280.00	50.00	10.00
TRCM201212SF751Y TA	750	850.00	280.00	50.00	10.00
TRCM201212SF801Y TA	800	850.00	250.00	50.00	10.00
TRCM201212SF901Y TA	900	950.00	250.00	50.00	10.00
TRCM201212SF102Y TA	1000	900.00	220.00	50.00	10.00
TRCM201212SF222Y TA	2200	1300.00	200.00	50.00	10.00

TRCM252012SF Series

Part Number	Common mode Impedance	DC Resistance	Rating Current	Rated Voltage	Insulation Resistance
	Z(Ω)@100MHz	DCR(m Ω)	I _{rms} (mA)	V(Vdc)	IR(M Ω)
	$\pm 25\%$	Max.	Max.	Max.	Min.
TRCM252012SF301Y TA	300	320.00	400.00	50.00	10.00
TRCM252012SF451Y TA	450	400.00	380.00	50.00	10.00
TRCM252012SF601Y TA	600	450.00	350.00	50.00	10.00
TRCM252012SF801Y TA	800	500.00	320.00	50.00	10.00
TRCM252012SF102Y TA	1000	550.00	300.00	50.00	10.00

TRCM321618SF Series

Part Number	Common mode Impedance	DC Resistance	Rating Current	Rated Voltage	Insulation Resistance
	Z(Ω)@100MHz	DCR(m Ω)	I _{rms} (mA)	V(Vdc)	IR(M Ω)
	$\pm 25\%$	Max.	Max.	Max.	Min.
TRCM321618SF500Y TA	50	120.00	700.00	50.00	10.00
TRCM321618SF900Y TA	90	150.00	600.00	50.00	10.00
TRCM321618SF161Y TA	160	200.00	500.00	50.00	10.00
TRCM321618SF261Y TA	260	250.00	400.00	50.00	10.00
TRCM321618SF361Y TA	360	300.00	400.00	50.00	10.00
TRCM321618SF601Y TA	600	350.00	350.00	50.00	10.00
TRCM321618SF102Y TA	1000	600.00	300.00	50.00	10.00
TRCM321618SF142Y TA	1400	750.00	280.00	50.00	10.00
TRCM321618SF222Y TA	2200	1000.00	250.00	50.00	10.00

TRCM322522SF Series

Part Number	Common mode Impedance	DC Resistance	Rating Current	Rated Voltage	Insulation Resistance
	Z(Ω)@100MHz	DCR(m Ω)	I _{rms} (mA)	V(Vdc)	IR(M Ω)
	$\pm 25\%$	Max.	Max.	Max.	Min.
TRCM322522SF900Y TA	90	60.00	1200.00	50.00	10.00
TRCM322522SF101Y TA	100	60.00	1200.00	50.00	10.00
TRCM322522SF121Y TA	120	60.00	1000.00	50.00	10.00
TRCM322522SF201Y TA	200	80.00	1000.00	50.00	10.00
TRCM322522SF501Y TA	500	120.00	800.00	50.00	10.00
TRCM322522SF601Y TA	600	120.00	700.00	50.00	10.00
TRCM322522SF102Y TA	1000	150.00	600.00	50.00	10.00
TRCM322522SF122Y TA	1200	300.00	500.00	50.00	10.00
TRCM322522SF142Y TA	1400	300.00	500.00	50.00	10.00
TRCM322522SF242Y TA	2400	300.00	500.00	50.00	10.00

TRCM453228SF Series

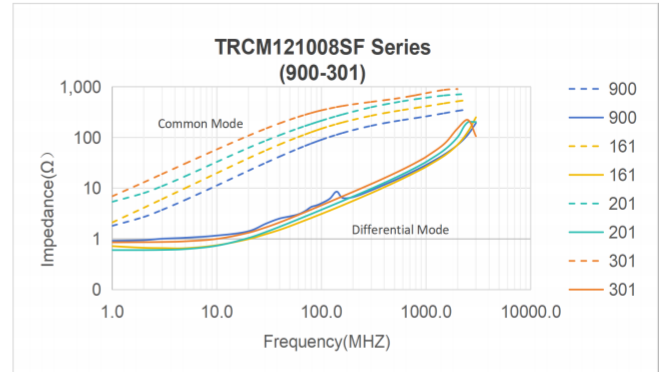
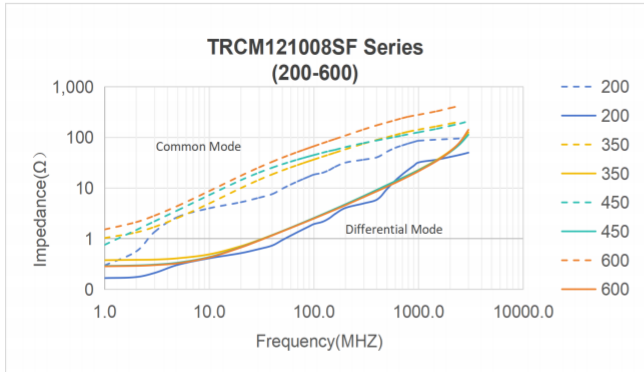
Part Number	Common mode Impedance	DC Resistance	Rating Current	Rated Voltage	Insulation Resistance
	Z(Ω)@100MHz	DCR(m Ω)	I _{rms} (mA)	V(Vdc)	IR(M Ω)
	$\pm 25\%$	Max.	Max.	Max.	Min.
TRCM453228SF800Y TA	80	50.00	1600.00	50.00	10.00
TRCM453228SF900Y TA	90	50.00	1600.00	50.00	10.00
TRCM453228SF121Y TA	120	55.00	1300.00	50.00	10.00
TRCM453228SF201Y TA	200	55.00	1300.00	50.00	10.00
TRCM453228SF231Y TA	230	65.00	1200.00	50.00	10.00
TRCM453228SF361Y TA	360	70.00	1200.00	50.00	10.00
TRCM453228SF421Y TA	420	80.00	1100.00	50.00	10.00
TRCM453228SF501Y TA	500	80.00	1000.00	50.00	10.00
TRCM453228SF601Y TA	600	80.00	1000.00	50.00	10.00
TRCM453228SF701Y TA	700	90.00	1000.00	50.00	10.00
TRCM453228SF801Y TA	800	100.00	900.00	50.00	10.00
TRCM453228SF901Y TA	900	110.00	900.00	50.00	10.00
TRCM453228SF102Y TA	1000	110.00	900.00	50.00	10.00
TRCM453228SF122Y TA	1200	110.00	800.00	50.00	10.00
TRCM453228SF142Y TA	1400	110.00	800.00	50.00	10.00

Notes

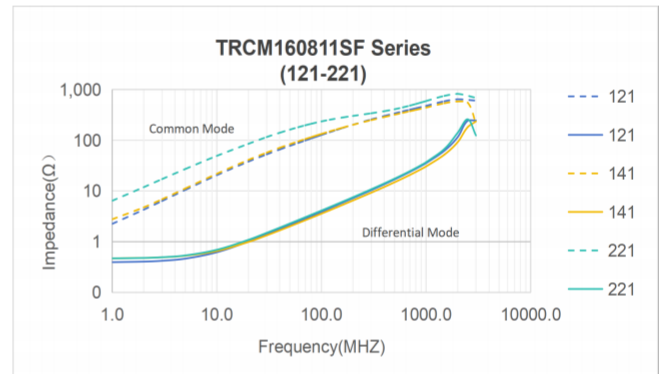
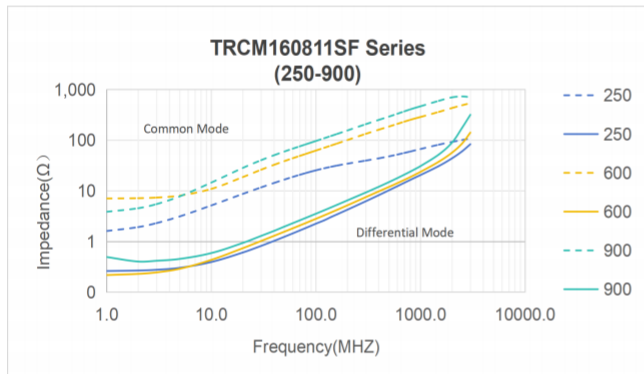
- All test data is referenced to 25 °C ambient.
- Operating temperature range -40 °C to + 125°C (Including self - temperature rise) .
- I_{rms} (A):DC current (A) that will cause an approximate ΔT of 40 °C(reference ambient temperature is 25 °C).
- The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions. all affect the part temperature. Part temperature should be verified in the end application.

Typical Characteristics Curves

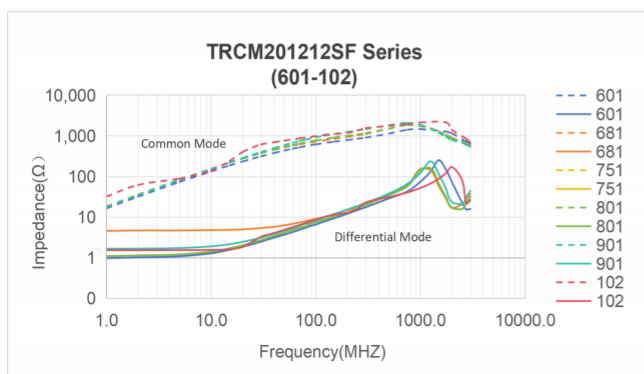
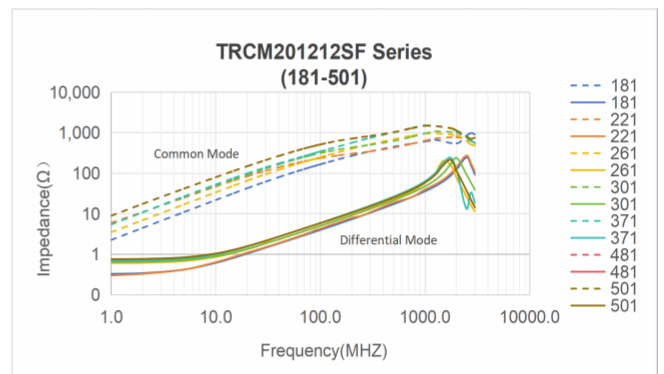
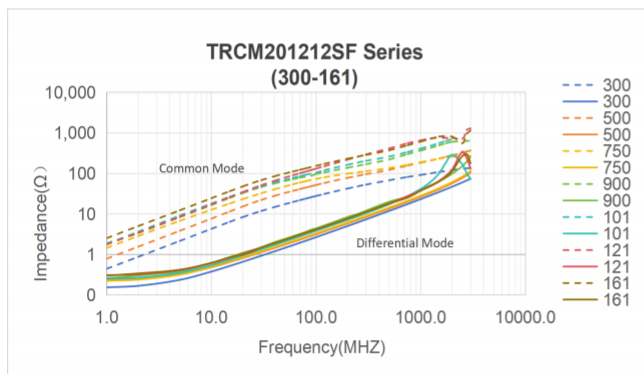
TRCM121008SF Series



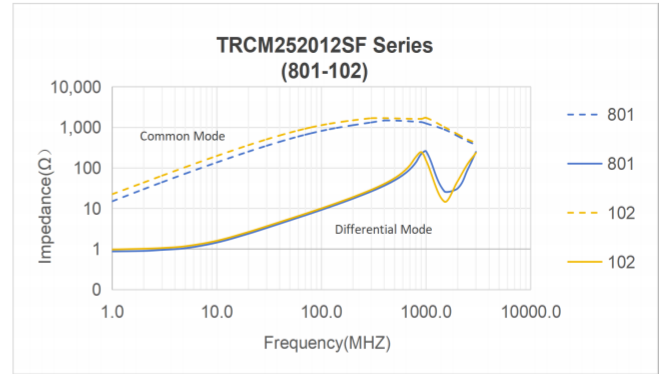
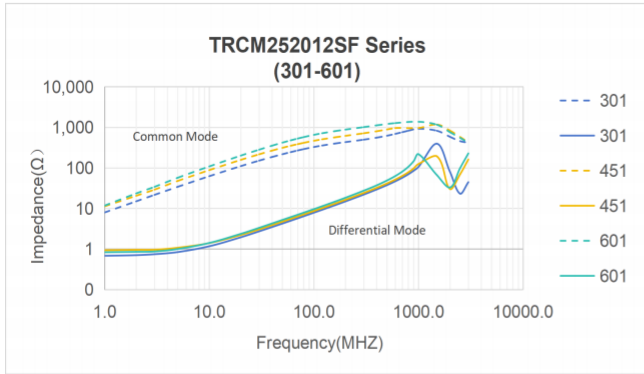
TRCM160811SF Series



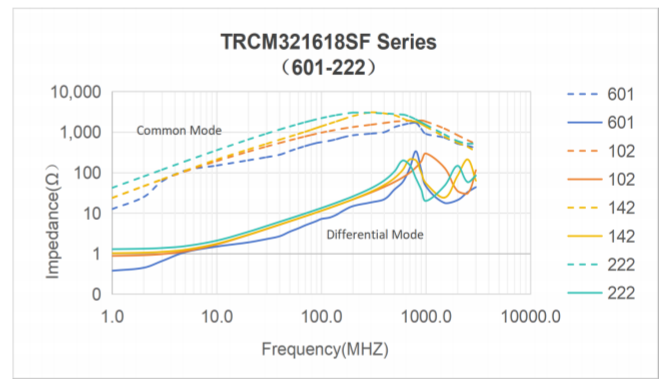
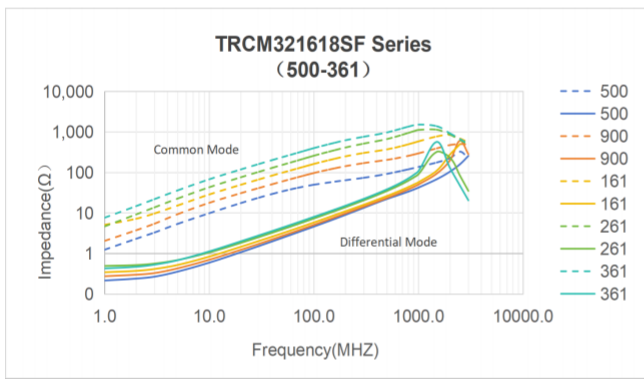
TRCM201212SF Series



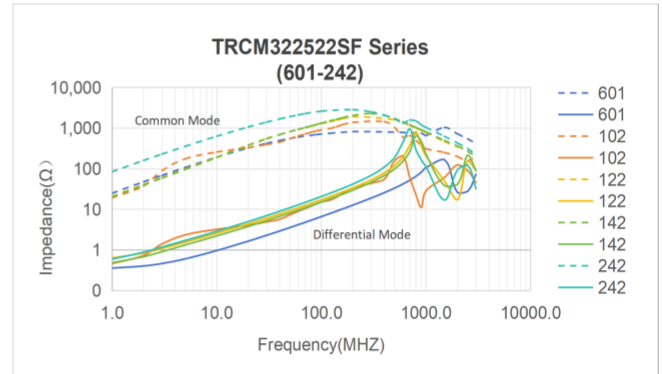
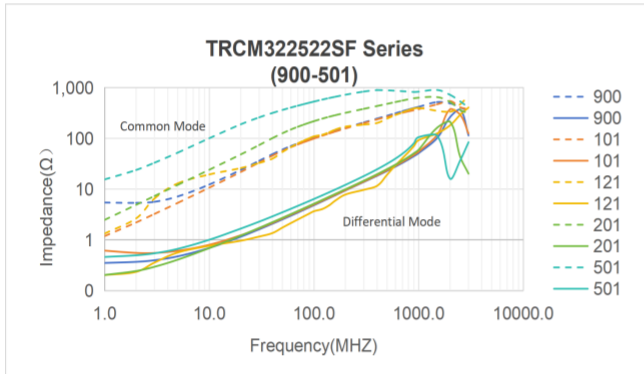
TRCM252012SF Series



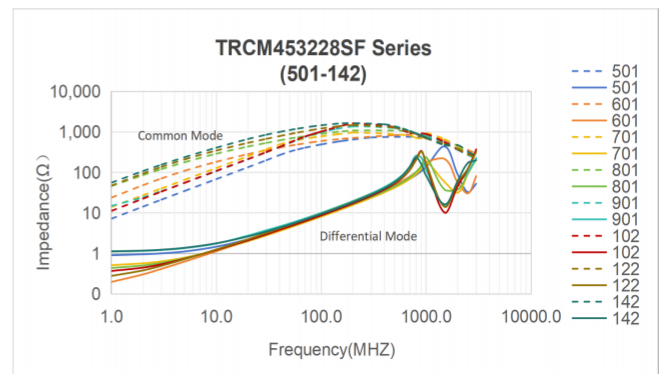
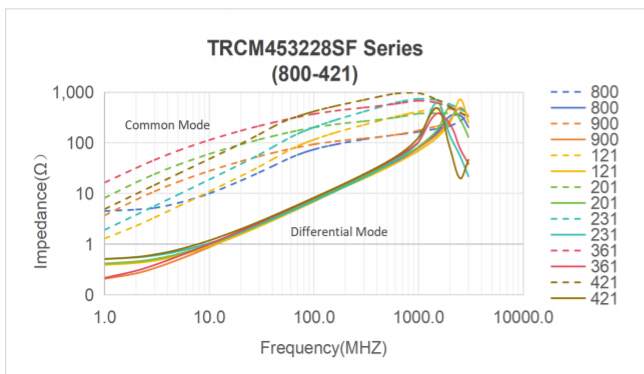
TRCM321618SF Series



TRCM322522SF Series

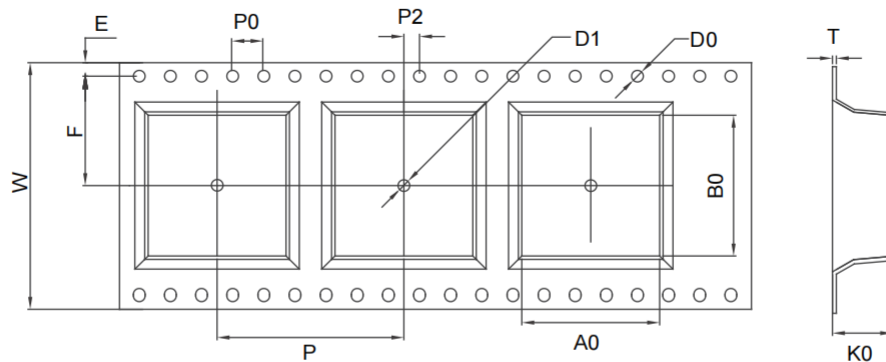


TRCM453228SF Series



Packaging Information

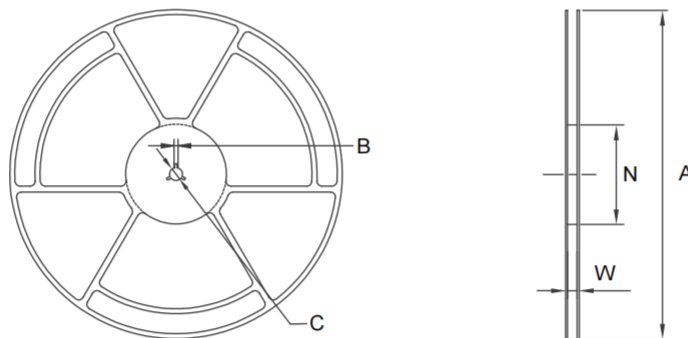
Tape Dimensions



Dimensions

Series	Tape dimensions (mm)											
	W	P	P0	P2	D0	D1	T	A0	B0	K0	E	F
TRCM121008SF	8.1±0.2	4.0±0.1	4.0±0.1	2.0±0.05	1.55±0.05	0.5±0.05	0.25±0.02	1.14±0.05	1.48±0.05	0.90±0.05	1.75±0.1	3.5±0.05
TRCM160811SF	8.0±0.1	4.0±0.1	4.0±0.1	2.0±0.05	1.55±0.05	0.5±0.05	0.25±0.02	0.89±0.05	1.78±0.05	1.30±0.05	1.75±0.1	3.5±0.05
TRCM201212SF	8.0±0.1	4.0±0.1	4.0±0.1	2.0±0.05	1.55±0.05	0.8±0.10	0.22±0.05	1.42±0.08	2.25±0.10	1.45±0.10	1.75±0.1	3.5±0.10
TRCM252012SF	8.0±0.1	4.0±0.1	4.0±0.1	2.0±0.05	1.5±0.1/-0	/	0.25±0.02	2.45±0.05	2.75±0.05	1.55±0.05	1.75±0.1	3.5±0.05
TRCM321618SF	8.0±0.1	4.0±0.1	4.0±0.1	2.0±0.05	1.55±0.05	1.0±0.05	0.25±0.03	1.88±0.05	3.53±0.10	1.95±0.10	1.75±0.1	3.5±0.10
TRCM322522SF	8.0±0.1	4.0±0.1	4.0±0.1	2.0±0.10	1.55±0.05	0.6±0.05	0.26±0.05	2.85±0.10	3.65±0.10	2.55±0.10	1.75±0.1	3.5±0.10
TRCM453228SF	12.0±0.1	8.0±0.1	4.0±0.1	2.0±0.10	1.55±0.05	1.55±0.05	0.30±0.05	3.55±0.10	4.85±0.10	3.05±0.10	1.75±0.1	5.5±0.10

Reel Dimensions



Dimensions

Series	Reel Dimensions (mm)					Quantity Reel
	A	W	N	B	C	
TRCM121008SF	179±1.0	10.0±1.5	58.1±1.0	2.3±0.3	13.0±1.5	3000 pcs / Reel
TRCM160811SF	179±1.0	10.0±1.5	58.1±1.0	2.3±0.3	13.0±1.5	3000 pcs / Reel
TRCM201212SF	179±1.0	10.0±1.5	58.1±1.0	2.3±0.3	13.0±1.5	2000 pcs / Reel
TRCM252012SF	179±1.0	10.0±1.5	58.1±1.0	2.3±0.3	13.0±1.5	2000 pcs / Reel
TRCM321618SF	179±1.0	10.0±1.5	58.1±1.0	2.3±0.3	13.0±1.5	2000 pcs / Reel
TRCM322522SF	179±1.0	10.0±1.5	58.1±1.0	2.3±0.3	13.0±1.5	1500 pcs / Reel
TRCM453228SF	330±2.0	12.8±0.5	97.0±0.5	2.3±0.3	13.0±0.2	2000 pcs / Reel