

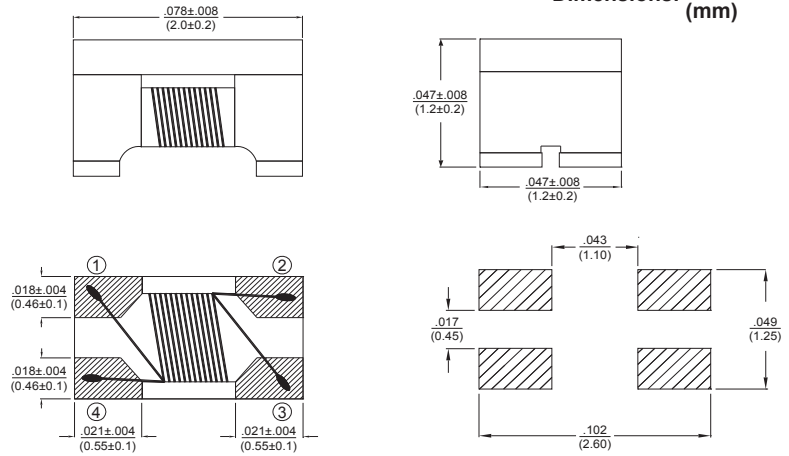


SMD Wirewound Common Mode Filter

SCM10S



Dimensions:  $\frac{\text{inch}}{\text{mm}}$



Recommended PCB Layout

Features

- Minature SMD common mode filter
- Excellent noise attenuation in a small package
- Suitable for automated assembly
- SCM series offers wide impedance range
- Excellent solderability
- MSL Level 1

Electrical

Impedance range: 67-360 $\Omega$   
 Tolerance: 25% over entire range  
 Test Frequency: 100MHz  
 Withstand Voltage: 125Vdc Max  
 Operating Temp: -40°C to +125°C  
 Rated Current:  $\Delta$  T 20°C Max

Solderability Test

Preheat: 150°C, 60 sec.  
 Solder: Sn96.5%, Ag3%, Cu0.5%  
 Temperature: 245  $\pm$ 5°C  
 Flux for Lead Free: Rosin 9.5%  
 Dip Time: 4  $\pm$ 1 sec  
 Depth: Completely cover the termination

Test Equipment

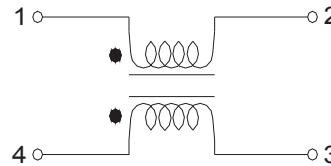
Z (Common Mode): Agilent 4291A+, Agilent 16197A  
 DCR: Agilent 4338B  
 IR: Agilent 4339

Physical

Packaging: 2000 pcs 7 inch reel  
 Marking: None

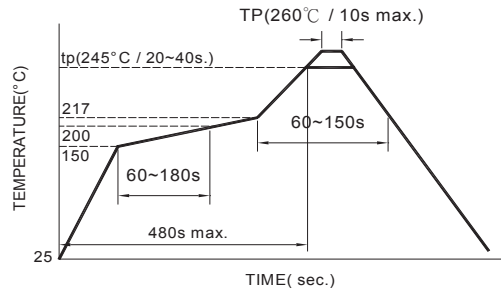
Allied Part Number	Common Mode Impedance ( $\Omega$ ) $\pm$ 25%	Test Frequency (MHz)	DC Resistance ( $\Omega$ ) Max	Rated Current (mA) Max	Rated Volt. (Vdc) Max	Withstand Volt. (Vdc) Max	IR ( $\Omega$ ) Min.
SCM10S-670	67	100	0.25	400	50	125	10M
SCM10S-900	90	100	0.30	400	50	125	10M
SCM10S-121	120	100	0.30	400	50	125	10M
SCM10S-161	160	100	0.35	350	50	125	10M
SCM10S-181	180	100	0.35	350	50	125	10M
SCM10S-201	200	100	0.40	300	50	125	10M
SCM10S-221	220	100	0.40	300	50	125	10M
SCM10S-261	260	100	0.40	300	50	125	10M
SCM10S-361	360	100	0.50	300	50	125	10M

Schematic



Reflow Soldering

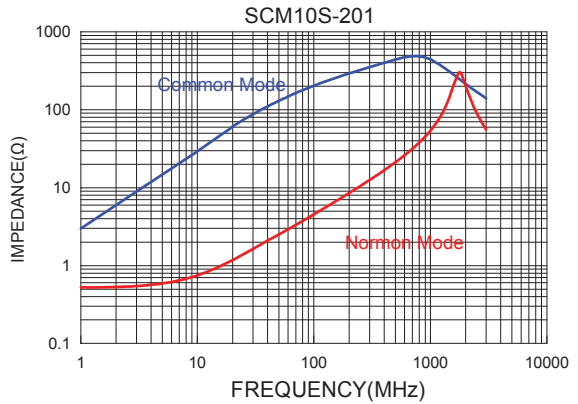
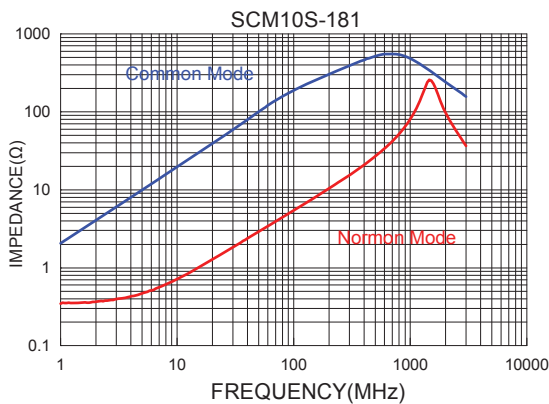
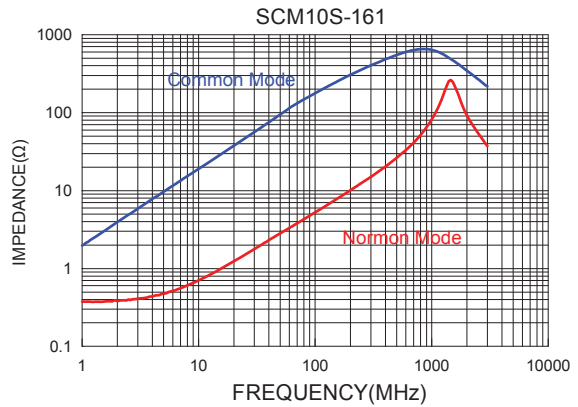
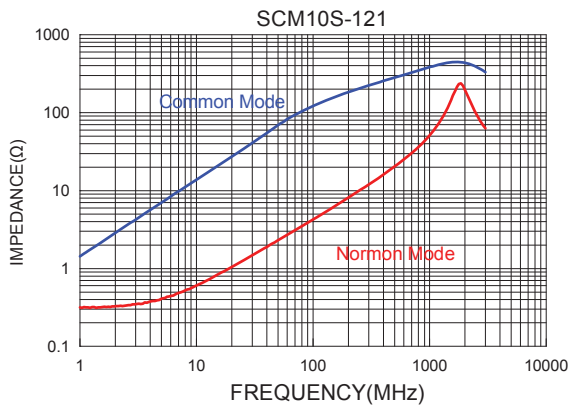
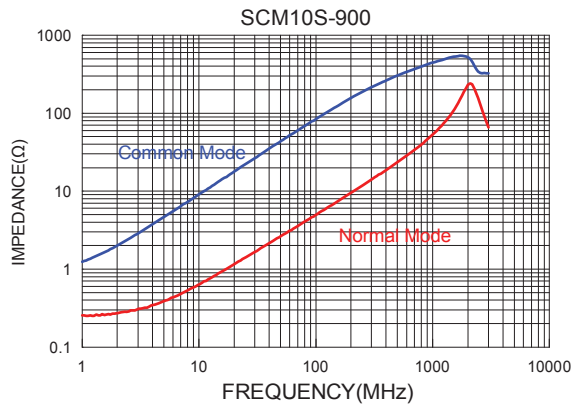
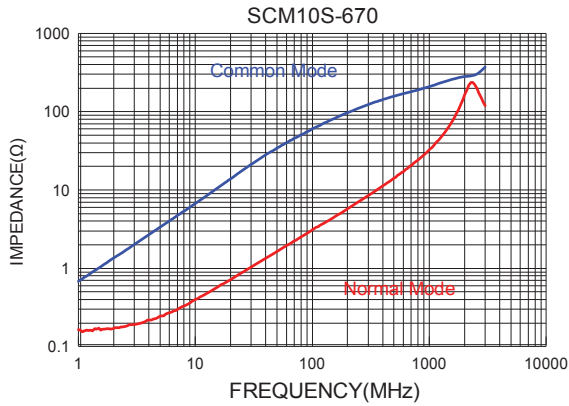
PRE-HEATING      SOLDERING      NATURAL COOLING



Reflow times: 3 times max.

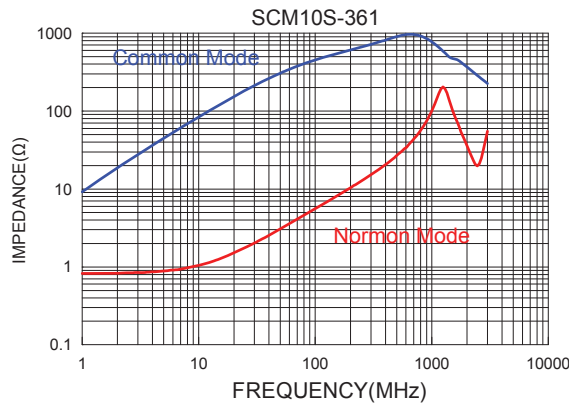
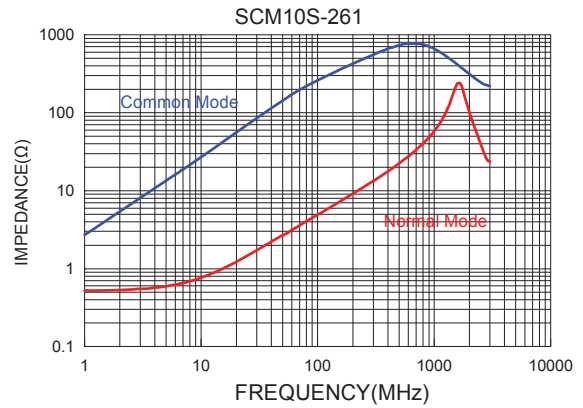
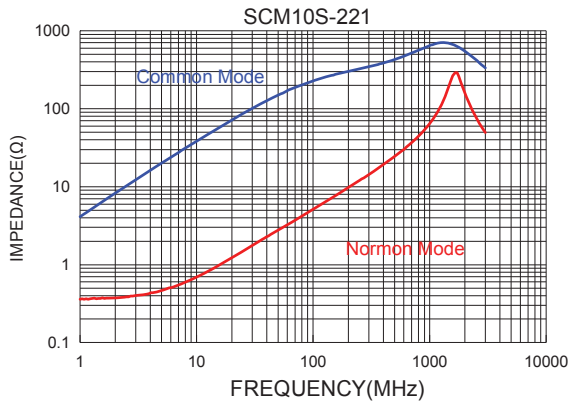


**Typical Impedance v.s. Frequency Curve**





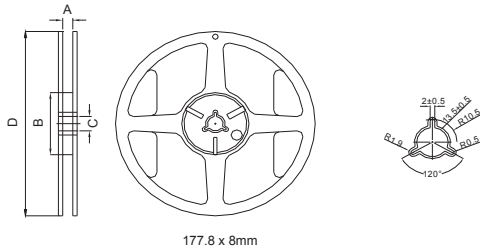
**Typical Impedance v.s. Frequency Curve**





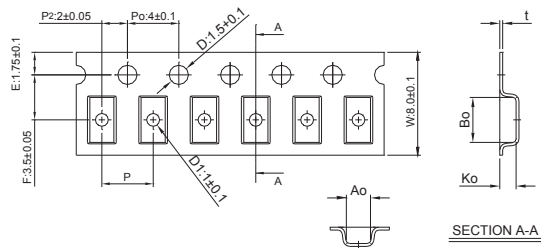
Packaging Information

Reel Dimension



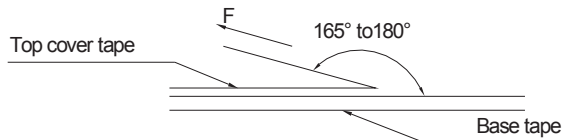
Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	9.0±0.5	60±2	13.5±0.5	178±2

Tape Dimension



Size	Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	t(mm)
201212	2.25±0.1	1.50±0.1	1.45±0.1	4.0±0.1	0.24±0.05

Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice

- Storage Conditions
  - To maintain the solderability of terminal electrodes:
    1. SCM10S Series meets IPC/JEDEC J-STD-020D standard-MSL, level 1.
    2. Temperature and humidity conditions: Less than 40°C and 60% RH.
    3. Recommended products should be used within 12 months form the time of delivery.
    4. The packaging material should be kept where no chlorine or sulfur exists in the air.
- Transportation
  1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
  2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
  3. Bulk handling should ensure that abrasion and mechanical shock are minimized.