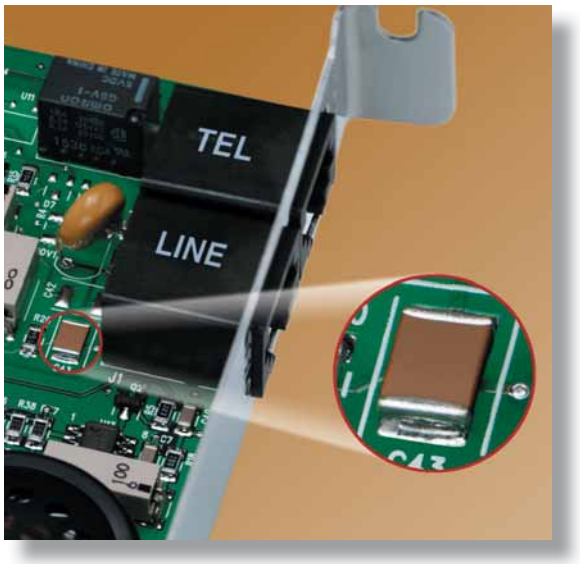
Tip & Ring Chip Capacitors



The Tip & Ring MLCC series are designed specifically for telecom ringer circuit applications where it is necessary to provide a block of the line voltage (typically -48 VDC) while passing the AC ringing voltage. These compact ceramic SMD chips replace bulky leaded film caps saving board space and stream-lining the assembly process.

Key Features

- Blocks Off-hook DC Voltage
- Passes AC Ring Signal
- 250 VDC Ratings For Telecom Interface
- Choice of SMD Chip Sizes
- Low ESR versus Frequency
- Stable Temperature Performance (X7R)

Capacitance Selection -1812-2225 Size

DIELECTRIC: X7R	S43 / 1812		S49 / 1825		S47 / 2220		S48 / 2225	
	INCHES	(mm)	INCHES	(mm)	INCHES	(mm)	INCHES	(mm)
L	.175 ±.010	(4.45 ±.25)	.180 ±.010	(4.57 ±.25)	.225 ±.010	(5.72 ±.25)	.225 ±.010	(5.72 ±.25)
W	.125 ±.010	(3.17 ±.25)	.250 ±.010	(6.35 ±.25)	.200 ±.010	(5.08 ±.25)	.250 ±.010	(6.35 ±.25)
T	.125 Max.	(3.17)	.140 Max.	(3.55)	.140 Max.	(3.55)	.140 Max.	(3.55)
E/B	.025 ±.015	(0.64±.38)	.025 ±.015	(0.64±.38)	.025 ±.015	(0.64±.38)	.025 ±.015	(0.64±.38)
	250 VDC		250 VDC		250 VDC		250 VDC	
.047 µF								
.056 µF								
.068 µF								
.082 µF								
0.10 µF								
0.12 µF								
0.15 µF								
0.18 µF								
0.22 µF								
0.27 µF								
0.33 µF								
0.39 µF								
0.47 µF								
0.56 µF								
0.68 µF								
0.82 µF								
1.00 µF								
1.20 µF								
1.50 µF								

Please contact the factory for capacitance, voltage, case size combinations not shown.

Tip & Ring Chip Capacitors

Capacitance Selection - 0805-1808 Size

DIELECTRIC: X7R	R15 / 0805			R18 / 1206			S41 / 1210			R29 / 1808		
		INCHES	(mm)		INCHES	(mm)		INCHES	(mm)		INCHES	(mm)
	L	.080 ±.010	(2.03 ±.25)	L	.125 ±.010	(3.17 ±.25)	L	.125 ±.010	(3.18 ±.25)	L	.180 ±.010	(4.57 ±.25)
	W	.050 ±.010	(1.27 ±.25)	W	.062 ±.010	(1.57 ±.25)	W	.095 ±.010	(2.41 ±.25)	W	.080 ±.010	(2.41 ±.25)
	T	.050 Max.	(1.27)	T	.055 Max.	(1.40)	T	.065 Max.	(1.65)	T	.065 Max.	(1.65)
	E/B	.020 ±.010	(0.51±.25)	E/B	.020 ±.010	(0.51±.25)	E/B	.020 ±.010	(0.51±.25)	E/B	.020 ±.010	(0.51±.25)
	250 VDC			250 VDC			250 VDC			250 VDC		
1000 pF												
1200 pF												
1500 pF												
1800 pF												
2200 pF												
2700 pF												
3300 pF												
3900 pF												
4700 pF												
5600 pF												
8200 pF												
.010 µF												
.012 µF												
.015 µF												
.018 µF												
.022 µF												
.027 µF												
.033 µF												
.039 µF												
.047 µF												
.056 µF												
.068 µF												
.082 µF												
0.10 µF												
0.22 µF												
0.27 µF												

Please contact the factory for capacitance, voltage, case size combinations not shown.

How to Order Tip & Ring

251	S43	W	474	M	V	4	E
VOLTAGE 251 = 250 V 301 = 300 V	**CASE SIZE** See Chart	**DIELECTRIC** W = X7R	**CAPACITANCE** 1st two digits are significant; third digit denotes number of zeros. 474 = 0.47 µF 105 = 1.00 µF	**TOLERANCE** K = ± 10% M = ± 20% Z = +80% -20%	**TERMINATION** V = Ni barrier w/ 100% Sn Plating	**MARKING** 4 = Unmarked 6 = EIA "J" Code*	**TAPE MODIFIER** Code Type Reel E Plastic 7" U Plastic 13" Tape specifications conform to EIA RS481

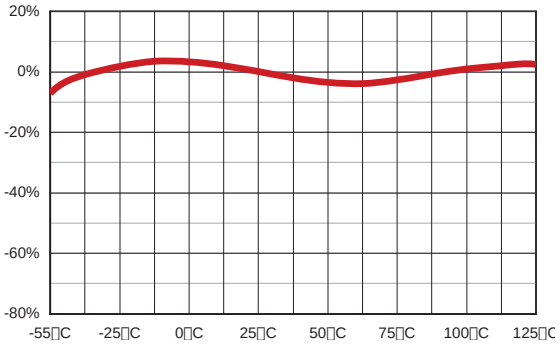
P/N written: 251S43W474MV4E

Tip & Ring Chip Capacitors

X7R Dielectric Characteristics

TEMPERATURE COEFFICIENT:	± 15%, -55 to +125°C
DISSIPATION FACTOR:	For ≥50 Volts: 2.5% max For 25 Volts: 3.0% max For 16 Volts: 3.5% max
AGING:	2.5% / decade hour
INSULATION RESISTANCE:	1000 ΩF or 100 GΩ,whichever is less @ 25°C, WVDC (500 ΩF or 10 GΩ for Tanceram® capacitors) 125°C IR is 10% of 25°C rating.
DIELECTRIC STRENGTH:	2.5 X rated voltages of 6 to 200 VDC 2.0 X rated voltages of 201 to 499 VDC 1.5 X rated voltages of 500 to 999 VDC 1.2 X rated voltages of 1000 VDC or higher.
TEST PARAMETERS:	1kHz ±50Hz, 1.0±0.2 VRMS, 25°C

X7R Cap. vs Temperature



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