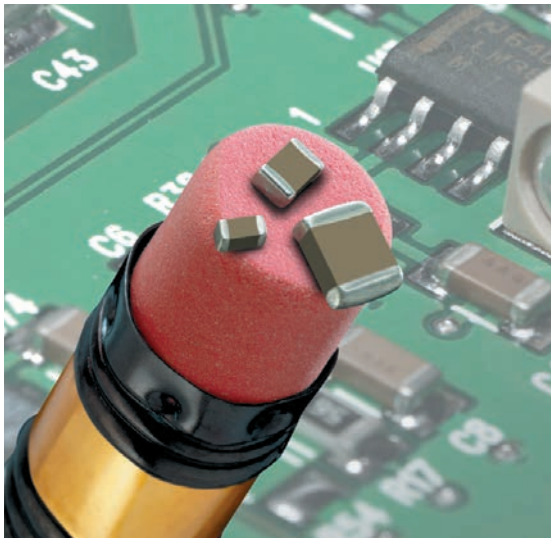
TANCERAM® CHIP CAPACITORS



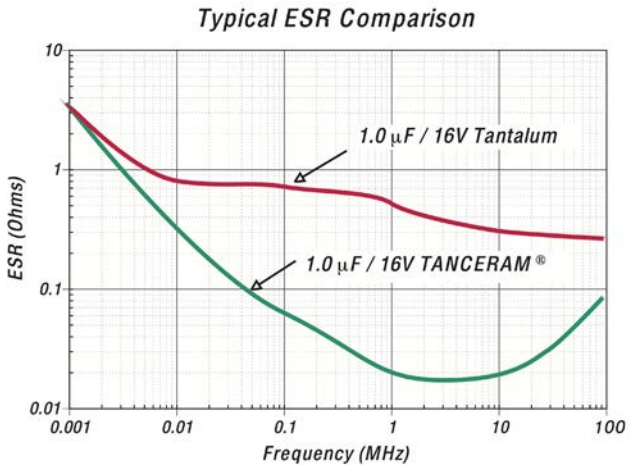
TANCERAM® chip capacitors can replace tantalum capacitors in many applications and offer several key advantages over traditional tantalums. Because TANCERAM® capacitors exhibit extremely low ESR, equivalent circuit performance can often be achieved using considerably lower capacitance values. Low DC leakage reduces current drain, extending the battery life of portable products. TANCERAM® high DC breakdown voltage ratings offer improved reliability and eliminate large voltage de-rating common when designing with tantalums.

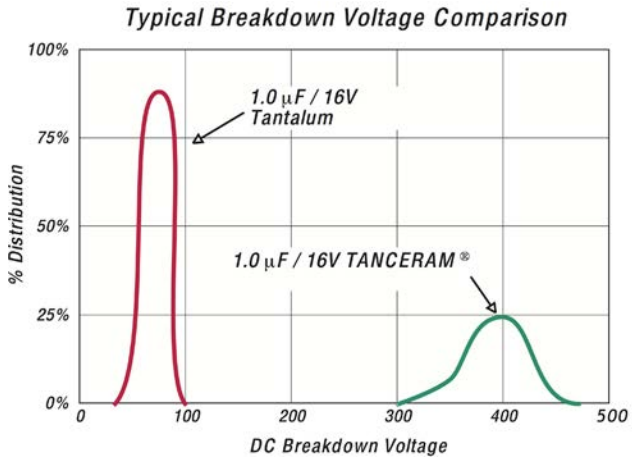
ADVANTAGES

- Low ESR
- Higher Surge Voltage
- Reduced CHIP Size
- Higher Insulation Resistance
- Low DC Leakage
- Non-polarized Devices
- Improved Reliability
- Higher Ripple Current

APPLICATIONS

- Switching Power Supply Smoothing (Input/Output)
- DC/DC Converter Smoothing (Input/Output)
- Backlighting Inverters
- General Digital Circuits





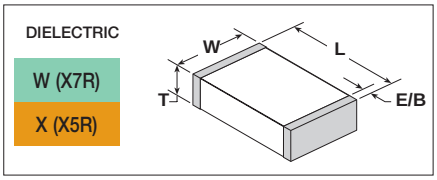
HOW TO ORDER TANCERAM®

Part number written: 100R15X106MV4E

100	R15	X	106	M	V	4	E
VOLTAGE	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	TERMINATION	MARKING	PACKING
6R3 = 6.3 V 100 = 10 V 160 = 16 V 250 = 25 V 500 = 50 V 101 = 100 V	See Chart	W = X7R X = X5R	1st two digits are significant; third digit denotes number of zeros. 105 = 1.00 µF 476 = 47.0 µF 107 = 100 µF	K = ±10% M = ±20%	V = Nickel Barrier with 100% Tin Plating (Matte) T = SnPb* (*available on select parts)	4 = Unmarked	Code Type Reel E Plastic 7” T Paper 7” Tape specifications conform to EIA RS481

TANCERAM® CHIP CAPACITORS

RoHS



CASE SIZE

EIA / JDI		INCHES	(mm)
0402 R07	L	.040 ±.004	(1.02 ±.10)
	W	.020 ±.004	(0.51 ±.10)
	T	.025 Max.	(0.64)
	EB	.008 ±.004	(0.20±.10)
0603 R14	L	.063 ±.008	(1.60 ±.20)
	W	.032 ±.008	(0.81 ±.20)
	T	.035 Max.	(0.89)
	EB	.010±.005	(.25±.13)
0805 R15	L	.080 ±.010	(2.03 ±.25)
	W	.050 ±.010	(1.27 ±.25)
	T	.060 Max.	(1.52)
	EB	.020±.010	(0.51±.25)
1206 R18	L	.125 ±.013	(3.17 ±.35)
	W	.062 ±.010	(1.57 ±.25)
	T	.070 Max.	(1.78)
	EB	.020 +.015-0.01	(0.51+.38-.25)
1210 S41	L	.126 ±.016	(3.20 ±.40)
	W	.098 ±.012	(2.50 ±.30)
	T	.110 Max.	(2.8)
	EB	.020 +.015-.010	(0.51+.38-.25)
1812 S43	L	.177 ±.016	(4.50 ±.40)
	W	.126 ±.015	(3.20 ±.38)
	T	.140 Max.	(3.55)
	EB	.035 ±.020	(0.89 ±0.51)

CAPACITANCE SELECTION

VDC	1.0 µF	2.2 µF	3.3 µF	4.7 µF	10 µF	22 µF	47 µF	100 µF
	105	225	335	475	106	226	476	107
16								
10								
6.3								
25								
16								
10								
6.3								
50								
25								
16								
10								
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35								
25								
16								
10								
6.3								
100								
50								
25								
	W X	W X	W X	W X	W X	W X	W X	W X
	"K" OR "M" TOLERANCE					ONLY "M" TOLERANCE		

ELECTRICAL CHARACTERISTICS

DIELECTRIC:	X7R	X5R
TEMPERATURE COEFFICIENT:	±15% (-55 to +125°C)	±15% (-55 to +85°C)
DISSIPATION FACTOR:	For ≥ 50 VDC: 5% max. For ≤ 35 VDC: 10% max.	For ≥ 50 VDC: 5% max. For ≤ 35 VDC: 10% max.
INSULATION RESISTANCE (MIN. @ 25°C, WVDC)	100 ΩF or 10 GΩ, whichever is less	
DIELECTRIC STRENGTH:	2.5 X WVDC, 25°C, 50mA max.	
TEST CONDITIONS:	Capacitance values ≤ 10 µF: 1.0kHz±50Hz @ 1.0±0.2 Vrms Capacitance values > 10 µF: 120Hz±10Hz @ 0.5V±0.1 Vrms	
OTHER:	See page 79 for additional dielectric specifications.	

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D55342E07B523DR-T/R NCA1206X7R104K16TRPF NIN-FB391JTRF NIN-FC2R7JTRF NMC0402NPO220J50TRPF NMC0402X5R105K6.3TRPF NMC0402X5R224K6.3TRPF NMC0402X7R103J25TRPF NMC0402X7R392K50TRPF NMC0603NPO1R8C50TRPF NMC0603NPO201J50TRPF NMC0603NPO330G50TRPF NMC0603X5R475M6.3TRPF NMC0805NPO220J100TRPF NMC0805NPO270J50TRPF NMC0805NPO681F50TRPF NMC0805NPO820J50TRPF NMC1206X7R102K50TRPF NMC1210Y5V105Z50TRPLPF NMC-L0402NPO7R0C50TRPF NMC-L0603NPO2R2B50TRPF NMC-P1206X7R103K1KVTRPLPF NMC-Q0402NPO8R2D200TRPF NPIS27H102MTRF C1206C101J1GAC C1608C0G2A221J C1608X7R1E334K C2012C0G2A472J KHC201E225M76N0T00 1812J2K00332KXT CCR06CG153FSV CDR14BP471CJUR CDR31BX103AKWR CDR33BX683AKUS CGA2B2C0G1H010C CGA2B2C0G1H040C CGA2B2C0G1H050C CGA2B2C0G1H060D CGA2B2C0G1H070D CGA2B2C0G1H120J CGA2B2C0G1H151J CGA2B2C0G1H1R5C CGA2B2C0G1H2R2C CGA2B2C0G1H390J CGA2B2C0G1H391J CGA2B2C0G1H3R3C CGA2B2C0G1H680J CGA2B2C0G1H6R8D CGA2B2C0G1H820J CGA2B2X8R1H152K