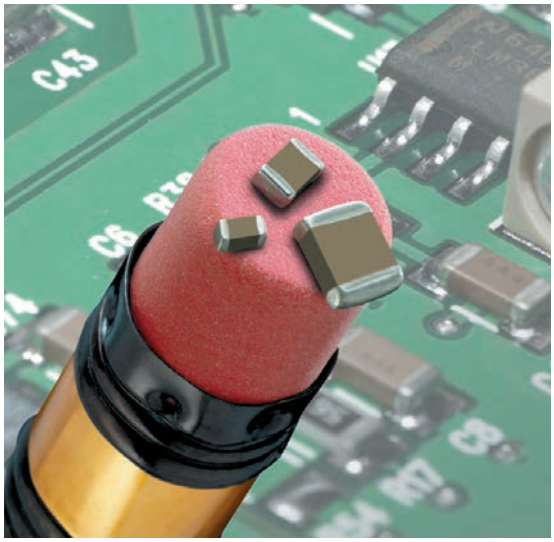
TANCERAM® CHIP CAPACITORS



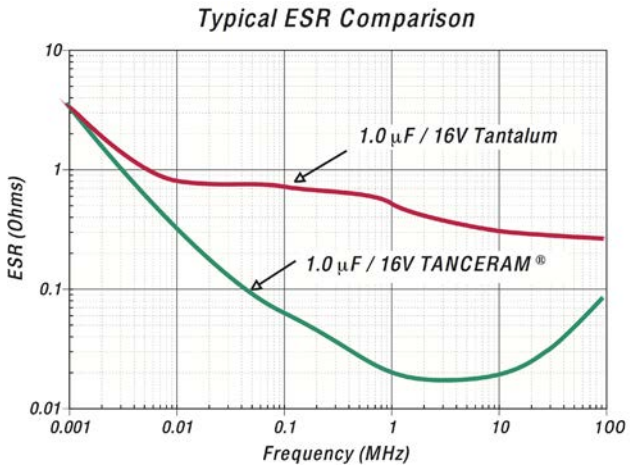
TANCERAM® chip capacitors can replace tantalum capacitors in many applications and offer several key advantages over traditional tantalums. Because TANCERAM® capacitors exhibit extremely low ESR, equivalent circuit performance can often be achieved using considerably lower capacitance values. Low DC 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.

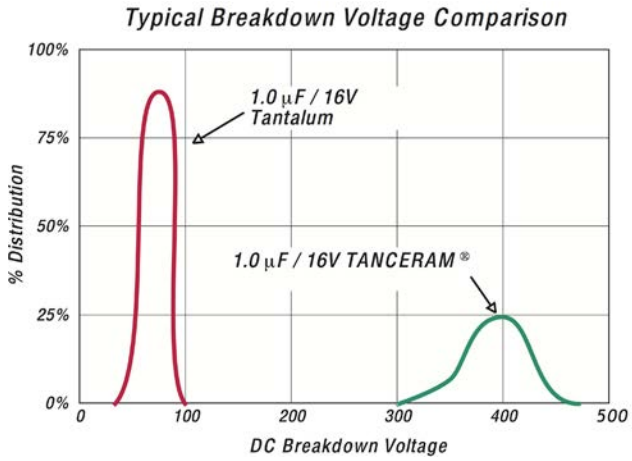
ADVANTAGES

- 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®

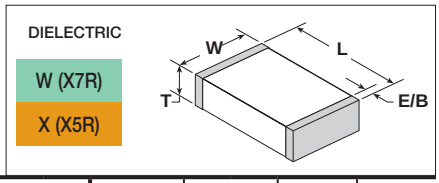
Part number written: 100R15X106MV4E

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

CAPACITANCE SELECTION



EIA / JDI	INCHES	(mm)	VDC	1.0 µF		1.5 µF		2.2 µF		3.3 µF		4.7 µF		10 µF		22 µF		47 µF		100 µF	220 µF
			Dielectric	W	X	W	X	W	X	W	X	W	X	W	X	W	X	W	X	X	X
0201 R05	L .024 ±.001 W .011 ±.001 T .013 Max. EB .004 Min.	(0.60 ±.03) (0.28 ±.03) (0.33 Max.) (0.10 Min.)	10																		
			6.3																		
			4																		
0402 R07	L .039 ±.002 W .020 ±.002 T .022 Max. EB .002 Min.	(0.99 ±.05) (0.51 ±.05) (0.55 Max.) (0.05 Min.)	35																		
			25																		
			16																		
			10																		
			6.3																		
			4																		
0603 R14	L .063 ±.004 W .031 ±.004 T .037 Max. EB .006 Min.	(1.60 ±.10) (0.79 ±.10) (0.93 Max.) (0.15 Min.)	50																		
			35																		
			25																		
			16																		
			10																		
			6.3																		
0805 R15	L .079 ±.012 W .049 ±.008 T .057 Max. EB .008 Min.	(2.01 ±.30) (1.24 ±.20) (1.44 Max.) (0.20 Min.)	50																		
			35																		
			25																		
			16																		
			10																		
			6.3																		
			4																		
1206 R18	L .126 ±.012 W .063 ±.008 T .071 Max. EB .010 Min.	(3.20 ±.30) (1.60 ±.20) (1.80) (0.25 Min.)	50																		
			35																		
			25																		
			16																		
			10																		
			6.3																		
1210 S41	L .126 ±.012 W .098 ±.012 T .106 Max. EB .012 Min.	(3.20 ±.30) (2.49 ±.30) (2.69 Max.) (0.30 Min.)	50																		
			35																		
			25																		
			16																		
			10																		
			6.3																		
1812 S43	L .177 ±.016 W .126 ±.012 T .118 Max. EB .012 Min.	(4.50 ±.41) (3.20 ±.30) (2.99 Max.) (0.30 Min.)	50																		
			25																		
2220 S47	L .220 ±.016 W .197 ±.016 T .118 Max. EB .012 Min.	(5.59 ±.41) (3.20 ±.30) (2.99 Max.) (0.30 Min.)	50																		
			25																		
				"K" OR "M" TOLERANCE, 0201 ONLY AVALIABLE IN M												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 81 for additional dielectric specifications.	

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Johanson:

6R3R15X476MV4E 6R3R14W225KV4T 6R3R15X226KV4E 6R3R05X473MV4T 6R3R05X123MV4T 6R3R05X823MV4T 6R3R18X475MV4E 6R3R05X224MV4T 6R3R15X225MV4E 6R3R05X103MV4T 6R3R18X335KV4E 6R3R05X273MV4T 6R3R14X106MV4T 6R3R15X335MV4E 6R3R14X225MV4T 6R3R15X225KV4E 6R3R05X183KV4T 6R3R07X105MV4T 6R3R15X335KV4E 6R3R07X474ZV4T 6R3R05X393KV4T 6R3R14X225ZV4T 6R3R07X224MV4T 6R3R18X106KV4E 6R3R05X104MV4T 6R3R05X683MV4T 6R3R14X225KV4T 6R3R07X475MV4T 6R3R07X475KV4T 6R3R14X335KV4T 6R3R15X226MV4E 6R3R18X476MV4E 6R3R05X183MV4T 6R3R15X106MV4E 6R3R05X103KV4T 6R3R15X475KV4E 6R3R05X223MV4T 6R3R05X333MV4T 6R3R18X335MV4E 6R3R14X106KV4T 6R3R18X107MV4E 6R3R05X123KV4T 6R3R07X224ZV4T 6R3R05X153MV4T 6R3R07X224KV4T 6R3R05X104KV4T 6R3R07X474KV4T 6R3R14X475KV4T 6R3R18X226KV4E 6R3R05X273KV4T 6R3R05X393MV4T 6R3R14X475ZV4T 6R3R05X223KV4T 6R3R07X105KV4T 6R3R15X106KV4E 6R3R15X475MV4E 6R3R18X475KV4E 6R3R14X475MV4T 6R3R07X225ZV4T 6R3R05X563MV4T 6R3R07X105ZV4T 6R3R18X226MV4E 6R3R05X333KV4T 6R3R05X473KV4T 6R3R05X153KV4T 6R3R05X683KV4T 6R3R05X823KV4T 6R3R18X106MV4E 6R3R07X225MV4T 6R3R05X563KV4T 6R3R07X474MV4T 6R3S43X107MV4E 6R3S41X107MV4E 6R3R15W335KV4E 6R3R15W475MV4E 6R3S43X476MV4E 6R3R18W475KV4E 6R3R15W475KV4E 6R3R14W105KV4T 6R3R15W335MV4E 6R3R18W106KV4E 6R3R15W225MV4E 6R3S41X226MV4E 6R3S43X686MV4E 6R3R15W225KV4E 6R3S41X476MV4E 6R3S41X226KV4E