

# TBJ SERIES

## COTS-Plus – SRC9000 Space Level



The TBJ COTS-Plus – SRC9000 series has been refined to incorporate only those commercially upscreened ratings which have been deemed suitable for mission critical and space level applications.

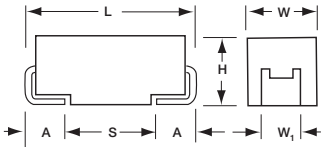
These capacitors have a more conservative design approach when compared to other up-screened components utilizing established CV powders and higher dielectric formation ratios. The DCL is typically 25% lower while still offering aggressive ESR values.

Currently there are 6 case sizes with the wide capacitance range available in a given voltage range.

These ratings are available with Weibull grading (B and C), surge current testing MIL-PRF-55365 (A, B, C), optional Group A from MIL-PRF-55365, and the extensive SRC9000 space level screening.

For moisture sensitivity levels please refer to the High Reliability Tantalum MSL section located in the back of the High Reliability Tantalum Catalog.

### CASE DIMENSIONS: millimeters (inches)

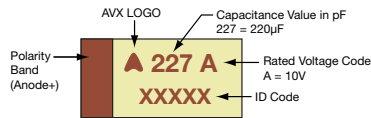


Code	EIA Code	EIA Metric	L±0.20 (0.008)	W+0.20 (0.008) -0.10 (0.004)	H+0.20 (0.008) -0.10 (0.004)	W <sub>1</sub> ±0.20 (0.008)	A+0.30 (0.012) -0.20 (0.008)	S Min.
A	1206	3216-18	3.20 (0.126)	1.60 (0.063)	1.60 (0.063)	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
B	1210	3528-21	3.50 (0.138)	2.80 (0.110)	1.90 (0.075)	2.20 (0.087)	0.80 (0.031)	1.40 (0.055)
C	2312	6032-28	6.00 (0.236)	3.20 (0.126)	2.60 (0.102)	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
D	2917	7343-31	7.30 (0.287)	4.30 (0.169)	2.90 (0.114)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
E	2917	7343-43	7.30 (0.287)	4.30 (0.169)	4.10 (0.162)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
U	2924	7361-43	7.30 (0.287)	6.10 (0.240)	4.10 (0.162)	3.10 (0.122)	1.30 (0.051)	4.40 (0.173)

W<sub>1</sub> dimension applies to the termination width for A dimensional area only.

### MARKING

#### A, B, C, D, E, V CASE



### CAPACITANCE AND RATED VOLTAGE, V<sub>R</sub> (VOLTAGE CODE) RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated Voltage DC (V <sub>R</sub> ) at 85°C						
µF	Code	6V (J)	10V (A)	16V (C)	20V (D)	25V (E)	35V (V)	50V (T)
0.10	104						A(20000)	
0.15	154						A(6000, 16470)	
0.22	224						A(6000, 13710)	A(7000, 7500)
0.33	334						A(6000, 11280)	A(7000)
0.47	474						A(4000, 9530)	B(5000)
0.68	684						A(6000, 7980)	A(6000, 8000)
1.0	105			A(10000)	A(3000, 6630)	A(3000, 6630)	A(3000, 6630) B(2000, 3400)	B(2000, 4000)
1.5	155		A(7000)		A(3000, 5640)	A(3000, 5640) B(5000)	A(2000, 3100) B(2500, 5460)	C(1500, 2500)
2.2	225		A(7000)	A(3500, 4550)	A(3000, 4550)	A(1600, 2900) B(1200, 4550)	B(2000, 4550)	C(1000, 1700) D(1200, 2000)
3.3	335			A(3500, 3750) B(4500)	A(2500, 3750) B(1300, 3740)	B(2000, 3740)	B(1000, 3740) C(800, 1840) D(2000)	C(1000, 1400) D(800, 1100)
4.7	475		A(2000, 2900)	A(2000, 3160) B(1500, 3160)	A(1800, 2500) B(1000, 3160)	B(1000, 3160)	B(1500, 2200) C(600, 1410) D(1500)	D(600, 900)
6.8	685		A(1800, 4000) B(3000)	A(1500, 2000) B(1200, 2650) C(2500)	B(1000, 2650) C(2000)	B(1000, 1500) C(600, 1070)	C(600, 1070) D(600, 1070)	D(700)
10	106	A(1500, 2000) B(3000)	A(1800, 2200) B(800, 2200)	B(800, 2200) C(2000)	B(1000, 2200) C(500, 800)	C(600, 800) D(1200)	C(600, 800) D(250, 800)	E(300, 700)
15	156	A(1500, 2030) B(700, 2030)	A(1000, 1800) B(600, 2030) C(2000)	B(800, 2000)	B(500, 1400) C(400, 750) D(1100)	C(500, 720) D(300, 720)	D(225, 720)	U(500)
22	226	A(900, 1700) B(600, 1880) C(2000)	B(700, 1800)	B(600, 1100) C(350, 700) D(1100)	C(400, 650) D(150, 650)	D(300, 650)	D(200, 650)	U(500)
33	336	B(600, 1740) C(1800)	B(650, 1000) C(300, 590) D(1100)	C(300, 590)	C(300, 590) D(250, 590)	D(400, 590)	E(250, 590)	
47	476	B(500, 1620) C(250, 540)	C(300, 540) D(400)	C(350, 540) D(200, 340)	D(200, 540)	D(250, 540) E(150, 540)	U(200, 400)	
68	686	C(200, 490)	C(300, 490)	D(150, 490)	D(200, 490) E(125, 490)	U(500)		
100	107	C(300, 440)	C(200, 500) D(150, 440) E(100, 440)	D(150, 450) E(150, 450)	E(150, 300)	U(500)		
150	157	C(300, 500) D(150, 400)	D(150, 400) E(150, 400)	E(150, 300)	U(250, 500)			
220	227	D(150, 360)	D(500) E(150, 360)	U(200, 500)				
330	337	D(400) E(150, 330)	E(100, 300)	U(200, 400)				
470	477	E(200, 250)	U(200, 400)					
680	687	U(250, 500)						

Available Ratings: ESR limits quoted in brackets (mOhms)

Notes: Voltage ratings are minimum values. AVX reserves the right to supply higher ratings in the same case size, to the same reliability standards.

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## COTS-Plus – SRC9000 Space Level



### HOW TO ORDER

#### AVX PART NUMBER:

<b>TBJ</b>	<b>D</b>	<b>227</b>	<b>*</b>	<b>035</b>	<b>R</b>	<b>B</b>	<b>S</b>	<b>Z</b>	<b>0</b>	<b>0</b>	<b>00</b>
<b>Type</b>	<b>Case Size</b>	<b>Capacitance Code</b> pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow)	<b>Capacitance Tolerance</b> M = ±20% K = ±10%	<b>Voltage Code</b> 006 = 6Vdc 010 = 10Vdc 016 = 16Vdc 020 = 20Vdc 025 = 25Vdc 035 = 35Vdc 050 = 50Vdc	<b>ESR</b> R = Std ESR J = Low ESR	<b>Packaging</b> B = Bulk R = 7" T&R S = 13" T&R W = Waffle	<b>Inspection Level</b> S = Std. Conformance L = Group A	<b>Reliability Grade</b> Weibull: B = 0.1%/1000 hrs. 90% conf. C = 0.01%/1000 hrs. 90% conf. Z = Non-ER	<b>Qualification Level</b> 0 = N/A <b>9 = SRC9000</b>	<b>Termination Finish</b> H = Solder Plated 0 = Fused Solder Plated 8 = Hot Solder Dipped 9 = Gold Plated 7 = Matte Sn (COTS-Plus only)	<b>Surge Test Option</b> 00 = None 23 = 10 Cycles, +25°C 24 = 10 Cycles, -55°C & +85°C 45 = 10 cycles, -55°C & +85°C before Weibull

\*Waffle packaging not available for the TBJ U case



#### SPACE LEVEL OPTIONS TO SRC9000\*:

<b>TBJ</b>	<b>D</b>	<b>227</b>	<b>*</b>	<b>035</b>	<b>R</b>	<b>B</b>	<b>L</b>	<b>C</b>	<b>9</b>	<b>0</b>	<b>45</b>
<b>Type</b>	<b>Case Size</b>	<b>Capacitance Code</b> pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow)	<b>Capacitance Tolerance</b> M = ±20% K = ±10%	<b>Voltage Code</b> 006 = 6Vdc 010 = 10Vdc 016 = 16Vdc 020 = 20Vdc 025 = 25Vdc 035 = 35Vdc 050 = 50Vdc	<b>ESR</b> R = Std ESR J = Low ESR	<b>Packaging</b> B = Bulk R = 7" T&R S = 13" T&R W = Waffle  See page 8 for additional packaging options.	<b>Inspection Level</b> L = Group A	<b>Reliability Grade</b> C = 0.01%/1000 hrs. 90% conf.	<b>Qualification Level</b> 9 = SRC9000	<b>Termination Finish</b> H = Solder Plated 0 = Fused Solder Plated 8 = Hot Solder Dipped 9 = Gold Plated	<b>Surge Test Option</b> 45 = 10 cycles, -55°C & +85°C before Weibull GC = Group C Testing and Data OR = TOR compliant testing and data

\*Waffle packaging not available for the TBJ U case

\*Contact factory for AVX SRC9000 Space Level SCD details.



### TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of 25°C									
Capacitance Range:	0.10 µF to 680 µF									
Capacitance Tolerance:	±10%; ±20%									
Leakage Current DCL:	0.0075CV									
Rated Voltage (V <sub>R</sub> )	≤ 85°C:	6	10	16	20	25	35	50		
Category Voltage (V <sub>C</sub> )	≤125°C:	4	7	10	13	17	23	33		
Surge Voltage (V <sub>S</sub> )	≤ 85°C:	8	13	20	26	32	46	65		
Surge Voltage (V <sub>S</sub> )	≤125°C:	5	8	13	16	20	28	40		
Temperature Range:	-55°C to +125°C									











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В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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