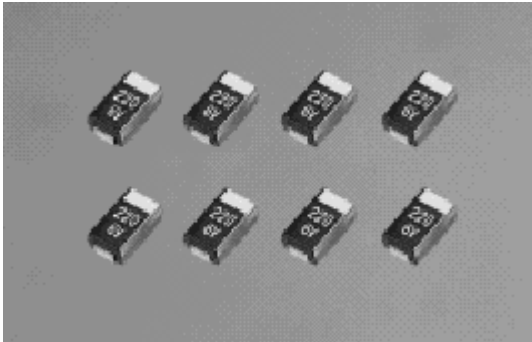
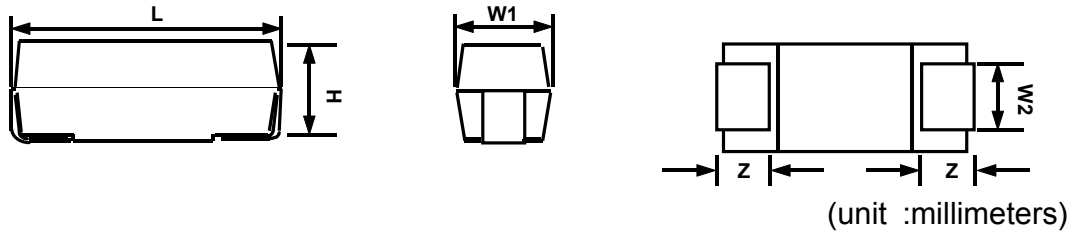


SCE Series



Drawing and Dimension



FEATURES

Designed for very low ESR.

- * Molded Case available in four case codes.
- * Extended Range Values
- * Compatible with automatic pick and place equipment.
- * Meets or Exceeds EIA standard 535BAAC .
- * Suitable for high frequency as high speed PC, Switching Regulators, DC/DC converter,and etc.

Case Code	EIA Code	L	W ₁	W ₂	H	Z
A	3216	3.2 ± 0.2	1.6 ± 0.2	1.2 ± 0.1	1.6 ± 0.2	0.8 ± 0.3
B	3528	3.5 ± 0.2	2.8 ± 0.2	2.2 ± 0.1	1.9 ± 0.2	0.8 ± 0.3
C	6032	6.0 ± 0.3	3.2 ± 0.3	2.2 ± 0.1	2.5 ± 0.3	1.3 ± 0.3
D	7343	7.3 ± 0.3	4.3 ± 0.3	2.4 ± 0.1	2.8 ± 0.3	1.3 ± 0.3

SPECIFICATIONS

Capacitance	Range	1.0 μ F to 680 μ F						
	Tolerance	\pm 20%(M), \pm 10%(K)						
Dissipation Factor (Tanδ)	C \leq 1.0μF	D.F \leq 4.0~6.0%						
	1.5μF \leq C \leq 6.8μF	D.F \leq 8.0%						
	10μF \leq C \leq 220μF	D.F \leq 8.0%						
	C \geq 330μF	D.F \leq 10.0%						
Leakage Current		between 0.01CV and 0.5 μ A, whichever is larger						
Rated Voltage (V_R)		4.0	6.3	10	16	20	25	35
Operating Voltage (V)	T \leq 85$^{\circ}$C	4.0	6.3	10.0	16.0	20.0	25.0	35.0
	85$^{\circ}$C < T \leq 125$^{\circ}$C	2.5	4.0	6.3	10.0	13.0	16.0	22.0
Surge Voltage (V)	T \leq 85$^{\circ}$C	5.2	8.0	13.0	20.0	25.0	32.0	44.0
	85$^{\circ}$C < T \leq 125$^{\circ}$C	3.2	5.0	8.0	13.0	16.0	20.0	28.0
Operating Temperature		-55 $^{\circ}$ C to 125 $^{\circ}$ C						

(SCE Series) Standard value and case size.

VOLT		4V	6.3V	10V	16V	20V	25V	35V
CAP.		(0G)	(0J)	(1A)	(1C)	(1D)	(1E)	(1V)
0.47	474							
0.68	684							
1.0	105				A(6000)	A(5500)	A(4000)	
1.5	155				A(6000)	A(4500)		
2.2	225		A(6000)	A(6000)	A(4000)	A(4000)		B(2500)
3.3	335		A(6000)	A(4000)	A(4000) B(2000)	A(2500)	B(2000)	C(800)
4.7	475		A(3500)	A(3000) B(1500)	A(3000) B(1500)	B(1500)		C(1000) D(1000)
6.8	685	A(3000)	A(2000) B(1200)	A(3000) B(1200)	B(1200) C(800)	B(1500) C(600)		D(500)
10	106	A(2000)	A(2000) B(1500)	B(1000) C(800)	B(1000) C(600)	C(500)	C(600) D(400)	D(300)
15	156	A(1500)	A(1500) B(1000)	A(1000) B(700) C(500)		C(450) D(400)	D(400)	D(300)
22	226	B(600)	B(800) C(500)	C(400)	B(600) C(400) D(300)	D(300)	D(200/300)	D(400)
33	336	C(500)		B(500/650) D(250)	D(300)	D(300)	D(300)	D(300)
47	476		B(400) C(400) D(220)	D(220)	C(350) D(150/200)	D(200)	D(250)	
68	686		D(200)	D(200)	D(150)	D(200/300)		
100	107	C(150)	C(150) D(150/200)	D(100/150)	D(100/150)			
150	157	D(125)	C(150/250) D(125)	D(100/150)	D(125/150)			
220	227	D(100)	D(150)	D(100/150)				
330	337	D(100)	D(100)	D(100/150)				
470	477	D(100)	D(100/200)					

※ Red = In Development

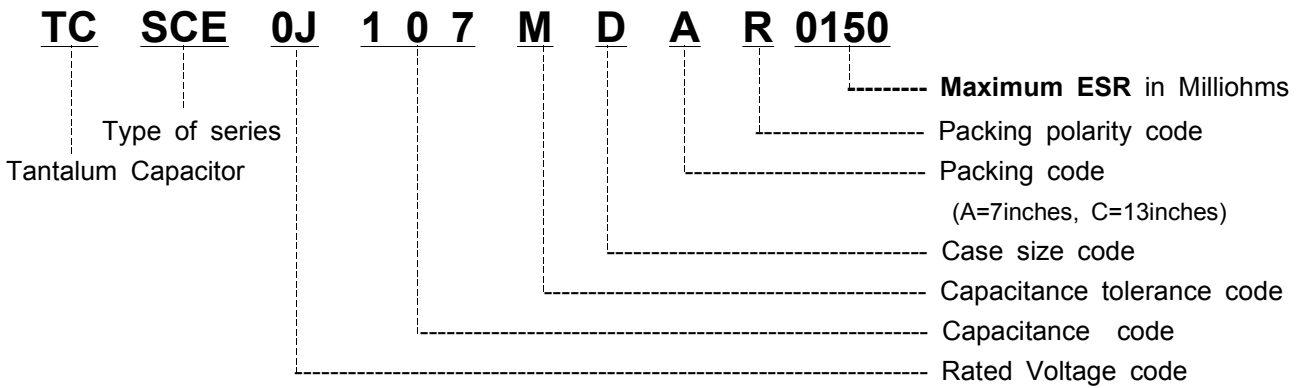
ESR limits quoted in brackets are in milliohms

NOTE :The EIA & CECC standards for low ESR Solid Tantalum Capacitors

allow an ESR movement to 1.25 times catalogue limit post mounting.

ORDERING INFORMATION

Product symbol : (Example) SCE Series ,D Case, 6.3V 100 μ F \pm 20%, 150m Ω ↓ .



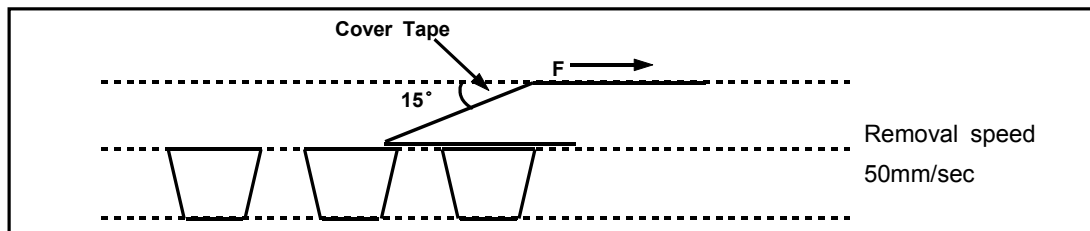
Taping Specification

The tantalum chip capacitors shall be packaged in tape and reel form for effective use.

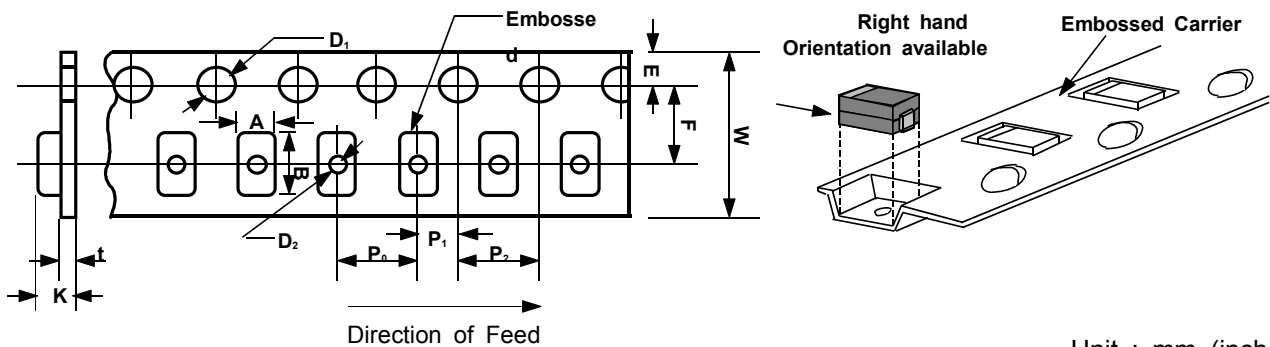
Tape : Semitransparent embossed plastic

Cover tape : Attached with press, polyester

The tension of removing the cover tape, F=10~70g



Carrier Tape Dimensions



Unit : mm (inch)

Case Code	W \pm 0.3 (\pm 0.012)	F \pm 0.1 (\pm 0.004)	E \pm 0.1 (\pm 0.004)	P ₀ \pm 0.1 (\pm 0.004)	P ₁ \pm 0.1 (\pm 0.004)	P ₂ \pm 0.1 (\pm 0.004)	D ₁ +0.1 (+0.004)	D ₂ Min.	t	A \pm 0.2 (\pm 0.008)	B \pm 0.2 (\pm 0.008)	K \pm 0.2 (\pm 0.008)
A	8 (0.315)	3.5 (0.138)	1.75 (0.069)	4 (0.157)	2 (0.079)	4 (0.157)	ϕ 1.5 (0.059)	ϕ 1.0 (0.039)	0.2 (0.008)	1.9 (0.075)	3.5 (0.138)	1.9 (0.075)
B									0.3 (0.012)	3.3 (0.130)	3.8 (0.150)	2.1 (0.083)
C	12 (0.472)	5.5 (0.217)	1.75 (0.069)	8 (0.315)	2 (0.079)	4 (0.157)	ϕ 1.5 (0.059)	ϕ 1.5 (0.059)	0.3 (0.012)	3.7 (0.146)	6.4 (0.252)	3.0 (0.118)
D									0.3 (0.012)	4.8 (0.189)	7.7 (0.303)	3.3 (0.130)



ELECTRO-MECHANICS

Solid Tantalum Chip Capacitor.

SCE(Low ESR Tantalum Chip Capacitors)

SCE Rating & Part Number Reference

Part Number	Case Size	Capacitance μF	DC Leakage μA @+25°C Max	DF % @+25°C 120Hz Max	ESR Ω @+25°C Max
4 Volt Rating @+85°C (2.5 Volt Rating @+125°C)					
TCSCE0G685*AAR3000	A	6.8	0.5	8	3.00
TCSCE0G106*AAR2000	A	10	0.5	8	2.00
TCSCE0G156*AAR1500	A	15	0.6	8	1.50
TCSCE0G226*BAR0600	B	22	0.9	8	0.60
TCSCE0G336*CAR0500	C	33	1.3	8	0.50
TCSCE0G107*CAR0150	C	100	4.0	8	0.15
TCSCE0G157*DAR0125	D	150	6.0	8	0.12
TCSCE0G227*DAR0100	D	220	8.8	8	0.10
TCSCE0G337*DAR0100	D	330	13.2	8	0.10
TCSCE0G477*DAR0100	D	470	18.8	8	0.10
6.3 Volt Rating @+85°C (4 Volt Rating @+125°C)					
TCSCE0J225*AAR6000	A	2.2	0.5	8	6.00
TCSCE0J335*AAR6000	A	3.3	0.5	8	6.00
TCSCE0J475*AAR3500	A	4.7	0.5	8	3.50
TCSCE0J685*AAR2000	A	6.8	0.5	8	2.00
TCSCE0J685*BAR1200	B	6.8	0.5	8	1.20
TCSCE0J106*AAR2000	A	10	0.6	8	2.00
TCSCE0J106*BAR1500	B	10	0.6	8	1.50
TCSCE0J156*AAR1500	A	15	0.8	8	1.50
TCSCE0J156*BAR1000	B	15	0.8	8	1.00
TCSCE0J226*BAR0800	B	22	1.3	8	0.80
TCSCE0J226*CAR0500	C	22	1.3	8	0.50
TCSCE0J476*BAR0400	B	47	3.0	8	0.40
TCSCE0J476*CAR0400	C	47	3.0	8	0.40
TCSCE0J476*DAR0220	D	47	3.0	8	0.22
TCSCE0J686*DAR0200	D	68	4.3	8	0.20
TCSCE0J107*CAR0150	C	100	6.3	8	0.15
TCSCE0J107*DAR0150	D	100	6.3	8	0.15
TCSCE0J107*DAR0200	D	100	6.3	8	0.20
TCSCE0J227*DAR0150	D	220	13.9	8	0.15
TCSCE0J337*DAR0100	D	330	20.8	10	0.10
10 Volt Rating @+85°C (6.3 Volt Rating @+125°C)					
TCSCE1A225*AAR6000	A	2.2	0.5	8	6.00
TCSCE1A335*AAR4000	A	3.3	0.5	8	4.00
TCSCE1A475*AAR3000	A	4.7	0.5	8	3.00
TCSCE1A475*BAR1500	B	4.7	0.7	8	1.50
TCSCE1A685*AAR3000	A	6.8	0.7	8	3.00
TCSCE1A685*BAR1200	B	6.8	0.7	8	1.20
TCSCE1A106*AAR2000	A	10	1.0	8	2.00
TCSCE1A106*BAR1000	B	10	1.0	8	1.00
TCSCE1A106*CAR0800	C	10	1.0	8	0.80
TCSCE1A156*AAR1000	A	15	1.5	8	1.00
TCSCE1A156*BAR0700	B	15	1.5	8	0.70

Part Number	Case Size	Capacitance μF	DC Leakage μA @+25°C Max	DF % @+25°C 120Hz Max	ESR Ω @+25°C Max
10 Volt Rating @+85°C (6.3 Volt Rating @+125°C)					
TCSCE1A156*CAR0500	C	15	1.5	8	0.50
TCSCE1A336*BAR0500	B	33	3.3	8	0.50
TCSCE1A336*BAR0650	B	33	3.3	8	0.65
TCSCE1A226*CAR0400	C	22	2.2	8	0.40
TCSCE1A336*DAR0250	D	33	3.3	8	0.25
TCSCE1A476*DAR0220	D	47	4.7	8	0.22
TCSCE1A686*DAR0200	D	68	6.8	8	0.20
TCSCE1A107*DAR0100	D	100	10.0	8	0.10
TCSCE1A107*DAR0150	D	100	10.0	8	0.15
TCSCE1A157*DAR0100	D	150	15.0	8	0.10
TCSCE1A157*DAR0150	D	150	15.0	8	0.15
TCSCE1A227*DAR0100	D	220	22.0	8	0.10
TCSCE1A227*DAR0150	D	220	22.0	8	0.15
16 Volt Rating @+85°C (10 Volt Rating @+125°C)					
TCSCE1C105*AAR6000	A	1	0.5	4	6.00
TCSCE1C155*AAR6000	A	1.5	0.5	8	6.00
TCSCE1C225*AAR4000	A	2.2	0.5	8	4.00
TCSCE1C335*AAR4000	A	3.3	0.5	8	4.00
TCSCE1C335*BAR2000	B	3.3	0.5	8	2.00
TCSCE1C475*AAR3000	A	4.7	0.7	8	3.00
TCSCE1C475*BAR1500	B	4.7	0.7	8	1.50
TCSCE1C685*BAR1200	B	6.8	1.0	8	1.20
TCSCE1C685*CAR0800	C	6.8	1.0	8	0.80
TCSCE1C106*BAR1000	B	10	1.6	8	1.00
TCSCE1C106*CAR0600	C	10	1.6	8	0.60
TCSCE1C226*BAR0600	B	22	3.5	8	0.40
TCSCE1C226*CAR0400	C	22	3.5	8	0.40
TCSCE1C226*DAR0300	D	22	3.5	8	0.30
TCSCE1C336*DAR0300	D	33	5.3	8	0.30
TCSCE1C476*CAR0350	C	47	7.5	8	0.35
TCSCE1C476*DAR0150	D	47	7.5	8	0.15
TCSCE1C476*DAR0200	D	47	7.5	8	0.20
TCSCE1C476*DAR0200	D	47	7.5	8	0.15
TCSCE1C686*DAR0150	D	68	10.8	8	0.15
TCSCE1C107*DAR0100	D	100	16.0	8	0.10
TCSCE1C107*DAR0150	D	100	16.0	8	0.15
20 Volt Rating @+85°C (13 Volt Rating @+125°C)					
TCSCE1D684*AAR8000	A	0.68	0.5	4	8.00
TCSCE1D105*AAR5500	A	1	0.5	8	5.50
TCSCE1D155*AAR4500	A	1.5	0.5	8	4.50
TCSCE1D225*AAR4000	A	2.2	0.5	8	4.00
TCSCE1D335*AAR2500	A	3.3	0.5	8	2.50
TCSCE1D475*BAR1500	B	4.7	1.0	8	1.50



SCE Rating & Part Number Reference

Part Number	Case Size	Capacitance μF	DC Leakage μA @+25°C Max	DF % @+25°C 120Hz Max	ESR Ω @+25°C Max
20 Volt Rating @+85°C (13 Volt Rating @+125°C)					
TCSCE1D685*BAR1500	B	6.8	1.4	8	1.50
TCSCE1D685*CAR0600	C	6.8	1.4	8	0.60
TCSCE1D106*CAR0500	C	10	2.0	8	0.50
TCSCE1D156*CAR0450	C	15	3.0	8	0.45
TCSCE1D156*DAR0400	D	15	3.0	8	0.40
TCSCE1D226*DAR0300	D	22	4.4	8	0.30
TCSCE1D336*DAR0300	D	33	6.6	8	0.30
TCSCE1D476*DAR0200	D	47	9.4	8	0.20
TCSCE1D686*DAR0200	D	68	13.6	8	0.20
TCSCE1D686*DAR0300	D	68	13.6	8	0.30
25 Volt Rating @+85°C (16 Volt Rating @+125°C)					
TCSCE1E474*AAR9000	A	0.47	0.5	4	9.00
TCSCE1E684*AAR6000	A	0.68	0.5	6	6.00
TCSCE1E105*AAR4000	A	1	0.5	8	4.00
TCSCE1E335*BAR2000	B	3.3	0.8	8	2.00
TCSCE1E106*CAR0600	C	10	2.5	8	0.60
TCSCE1E106*DAR0400	D	10	2.5	8	0.40
TCSCE1E156*DAR0400	D	15	3.7	8	0.40
TCSCE1E226*DAR0200	D	22	5.5	8	0.20
TCSCE1E226*DAR0300	D	22	5.5	8	0.30
TCSCE1E336*DAR0300	D	33	8.3	8	0.30
TCSCE1E476*DAR0250	D	47	11.8	8	0.25
35 Volt Rating @+85°C (22 Volt Rating @+125°C)					
TCSCE1V225*BAR2500	B	2.2	0.7	8	2.50
TCSCE1V335*CAR0800	C	3.3	1.1	8	0.80
TCSCE1V475*CAR1000	C	4.7	1.6	8	1.00
TCSCE1V475*DAR1000	D	4.7	1.6	8	1.00
TCSCE1V685*DAR0500	D	6.8	2.3	8	0.50
TCSCE1V106*DAR0300	D	10	3.5	8	0.30
TCSCE1V156*DAR0300	D	15	5.3	8	0.30
TCSCE1V226*DAR0400	D	22	7.7	8	0.40
TCSCE1V336*DAR0300	D	33	11.6	8	0.30

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5v RMS with a maximum DC bias of 2.0 volts. DCL is measured at rated voltage after 5 minutes.

*Insert K for $\pm 10\%$ and M for $\pm 20\%$.