

TANTALUM CAPACITOR

TCR Series

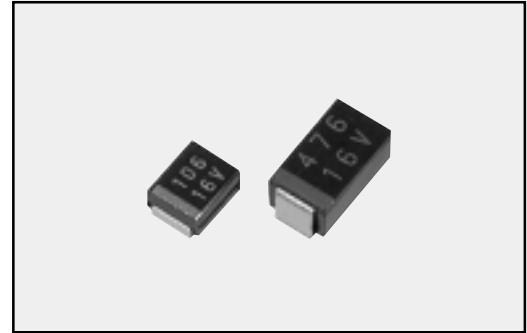
TCR Low ESR

Application:

Smoothing Circuit of DC-DC Converters & Output side of AC-DC Converters, De-Coupling Circuit of High Speed ICs & MPUs and Various Other High Frequency Circuit Applications

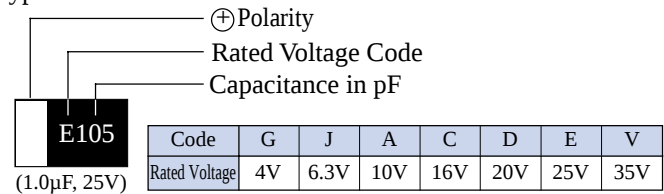
Features:

- Superior ESR & Frequency Characteristics
 - Capacitance 0.68 μ F to 330 μ F
 - Low Failure Rate: 0.5% or less / 1000hrs
 - Meets or Exceeds the International Standards like EIA-535BAAC, QC300801/US001 etc.
 - Precise Molding & Smooth Surface
- Enables Hassle Free Automatic Mounting

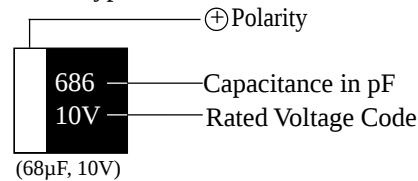


Marking:

(1) A Type



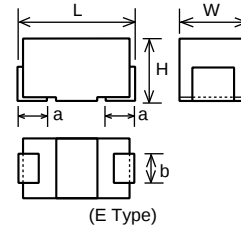
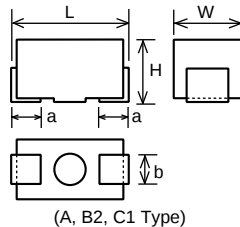
(2) B2, C1, E Type



Performance Specifications

Operating Temp. Range	-55 ~ +125°C
Max. Operating Temp. at RV	+85°C
Standard Capacitance Rating	See Page # 25
Capacitance Tolerance	±20%(M)
Dissipation Factor	See 'TCR series standard P/N & data' -Page # 25
ESR	
DC Leakage Current	
Solderability	260°C 10 sec (Dip)
Humidity Test	60°C, 90 ~ 95% RH for 500Hrs.
High temp. Load Test	85°C, Rated Voltage Applied for 2,000Hrs. or 125°C, De-rated Voltage Applied for 2,000Hrs.
Failure Rate	0.5% or less / 1,000Hrs. (60% CL)
Conformity	JIS-C-5101-1, EIA-535BAAC etc.

Standard Type Code and Dimensions:



Type Code	EIA Code	Unit : mm					Unit : Inch				
		L	W	H	a	b	L	W	H	a	b
A	3216	±0.2	±0.2	±0.2	±0.2	±0.2	0.008	0.008	0.008	0.008	0.008
B2	3528	3.2	1.6	1.6	0.8	1.2	0.126	0.063	0.063	0.031	0.047
C1	6032	3.5	2.8	1.9	0.8	2.2	0.138	0.110	0.075	0.031	0.087
E	7343	6.0	3.2	2.5	1.2	2.2	0.236	0.126	0.098	0.047	0.087
		7.3	4.3	2.9	1.3	2.4	0.287	0.169	0.114	0.051	0.094

TANTALUM CAPACITOR

TCR – Low ESR Type: Standard Capacitance Ratings, Type Codes and Max. ESR Values

R.V.(V)		4.0				6.3				10				16				20				25				35			
Cap.(μF)	Symbol	4R0				6R3				010				016				020				025				035			
0.68	R68																									A			
1.0	1R0																					A				A			
1.5	1R5																	A				A			B2				
2.2	2R2													A				A				A			B2				
3.3	3R3										A			A				A			B2			C1					
4.7	4R7							A			A			A			B2			B2			C1						
6.8	6R8				A			A			A			B2			B2			C1			C1						
10	100				A			A			B2			B2			C1			C1									
15	150				A			B2			B2			B2			C1												
22	220			B2				B2			B2			C1			C1												
33	330			B2				B2			C1			C1															
47	470			B2				C1			C1			C1															
68	680			C1				C1			C1			E															
100	101			C1				C1			E			E															
150	151			C1				E			E																		
220	221	E						E																					
330	331	E																											

TCR SERIES STANDARD P/N & DATA

R.V. (V)	Cap. (μF)	Type Code	Catalogue P/N	Max.DCL @+25°C (μA)	Max.DF @+25°C 120Hz(%)	Max.ESR @+25°C 100kHz(Ω)	Max.Ripple Current @+25°C 100kHz (mAr.m.s)
4	6.8	A	TA-4R0TCR6R8M-AR	0.50	8	2.50	180
	10	A	TA-4R0TCR100M-AR	0.50	8	2.50	180
	15	A	TA-4R0TCR150M-AR	0.60	8	2.50	180
	22	B2	TA-4R0TCR220M-B2R	0.88	8	0.80	350
	33	B2	TA-4R0TCR330M-B2R	1.32	8	0.80	350
	47	B2	TA-4R0TCR470M-B2R	1.88	8	0.80	350
	68	C1	TA-4R0TCR680M-C1R	2.72	8	0.30	660
	100	C1	TA-4R0TCR101M-C1R	4.00	10	0.27	690
	150	C1	TA-4R0TCR151M-C1R	6.00	10	0.24	740
	220	E	TA-4R0TCR221M-ER	8.80	10	0.22	830
	330	E	TA-4R0TCR331M-ER	13.20	10	0.17	940
6.3	4.7	A	TA-6R3TCR4R7M-AR	0.50	6	2.50	180
	6.8	A	TA-6R3TCR6R8M-AR	0.50	8	2.50	180
	10	A	TA-6R3TCR100M-AR	0.50	8	2.50	180
	15	B2	TA-6R3TCR150M-B2R	0.95	8	0.80	350
	22	B2	TA-6R3TCR220M-B2R	1.39	8	0.80	350
	33	B2	TA-6R3TCR330M-B2R	2.08	8	0.80	350
	47	C1	TA-6R3TCR470M-C1R	2.96	8	0.30	660
	68	C1	TA-6R3TCR680M-C1R	4.28	8	0.27	690
	100	C1	TA-6R3TCR101M-C1R	6.30	10	0.24	740
	150	E	TA-6R3TCR151M-ER	9.45	10	0.20	870
	220	E	TA-6R3TCR221M-ER	13.86	10	0.16	970
10	3.3	A	TA-010TCR3R3M-AR	0.50	6	2.50	180
	4.7	A	TA-010TCR4R7M-AR	0.50	6	2.50	180
	6.8	A	TA-010TCR6R8M-AR	0.68	8	2.50	180
	10	B2	TA-010TCR100M-B2R	1.00	8	0.80	350
	15	B2	TA-010TCR150M-B2R	1.50	8	0.80	350
	22	B2	TA-010TCR220M-B2R	2.20	8	0.80	350
	33	C1	TA-010TCR330M-C1R	3.30	8	0.30	660
	47	C1	TA-010TCR470M-C1R	4.70	8	0.30	720
	68	C1	TA-010TCR680M-C1R	6.80	8	0.30	720
	100	E	TA-010TCR101M-ER	10.00	10	0.20	870
	150	E	TA-010TCR151M-ER	15.00	10	0.16	970
16	2.2	A	TA-016TCR2R2M-AR	0.50	6	2.50	180
	3.3	A	TA-016TCR3R3M-AR	0.50	6	2.50	180
	4.7	A	TA-016TCR4R7M-AR	0.75	6	2.50	180
	6.8	B2	TA-016TCR6R8M-B2R	1.09	8	0.80	350
	10	B2	TA-016TCR100M-B2R	1.60	8	0.80	350
	15	B2	TA-016TCR150M-B2R	2.40	8	0.80	350
	22	C1	TA-016TCR220M-C1R	3.52	8	0.30	660
	33	C1	TA-016TCR330M-C1R	5.28	8	0.30	720
	47	C1	TA-016TCR470M-C1R	7.52	8	0.30	720
	68	E	TA-016TCR680M-ER	10.88	10	0.20	870
	100	E	TA-016TCR101M-ER	16.00	10	0.16	970
20	1.5	A	TA-020TCR1R5M-AR	0.50	6	3.30	160
	2.2	A	TA-020TCR2R2M-AR	0.50	6	3.30	160
	3.3	A	TA-020TCR3R3M-AR	0.66	6	3.30	160
	4.7	B2	TA-020TCR4R7M-B2R	0.94	6	1.60	250
	6.8	B2	TA-020TCR6R8M-B2R	1.36	8	1.60	250
	10	C1	TA-020TCR100M-C1R	2.00	8	0.50	510
	15	C1	TA-020TCR150M-C1R	3.00	8	0.50	510
	22	C1	TA-020TCR220M-C1R	4.40	8	0.50	510
	1.0	A	TA-025TCR1R0M-AR	0.50	6	3.30	160
	1.5	A	TA-025TCR1R5M-AR	0.50	6	3.30	160
25	2.2	A	TA-025TCR2R2M-AR	0.55	6	3.30	160
	3.3	B2	TA-025TCR3R3M-B2R	0.83	6	1.60	250
	4.7	B2	TA-025TCR4R7M-B2R	1.18	6	1.60	250
	6.8	C1	TA-025TCR6R8M-C1R	1.70	8	0.50	510
	10	C1	TA-025TCR100M-C1R	2.50	8	0.50	510
	0.68	A	TA-035TCR6R8M-AR	0.50	6	4.00	140
	1.0	A	TA-035TCR1R0M-AR	0.50	6	3.30	160
	1.5	B2	TA-035TCR1R5M-B2R	0.53	6	2.20	220
	2.2	B2	TA-035TCR2R2M-B2R	0.77	6	1.60	250
	3.3	C1	TA-035TCR3R3M-C1R	1.16	6	0.70	430
35	4.7	C1	TA-035TCR4R7M-C1R	1.65	6	0.60	470
	6.8	C1	TA-035TCR6R8M-C1R	2.38	8	0.60	470