

Solid Tantalum Surface Mount Capacitors

TANTAMOUNT[®], Molded Case, DSCC Approved, Built-In Fuse



FEATURES

- Terminations: Tin/lead solder plated
- Molded package available in 3 case codes
- Meets MIL-PRF-55365 and EIA535BAAC mechanical and performance requirements
- Compliant terminations
- Electrically activated internal fuse

Reliability Grade

Weibull B (0.1 %), C (0.01 %) and D (0.001 %) per MIL-PRF-55365

Non-Weibull Z: Voltage aging a minimum of 10 h at 1.32 times rated voltage

100 % Surge Current Tested

- Temperature: 25 °C
- Applied voltage: Rated voltage
- Test cycles: 4
- Charge and discharge cycles: 4 s maximum
- Total DC resistance: 1.2 Ω maximum

PERFORMANCE/ELECTRICAL CHARACTERISTICS

Operating Temperature: - 55 °C to + 125 °C
(above 85 °C, voltage derating is required)

Capacitance Range: 0.47 μF to 470 μF

Capacitance Tolerance: ± 20 %

Voltage Rating: 4 V_{DC} to 50 V_{DC}

ORDERING INFORMATION			
<u>04053-</u>	<u>001</u>	<u>Z</u>	<u>T</u>
DRAWING NUMBER	DASH NUMBER	RELIABILITY GRADE (% per 1000 h)	PACKAGING
		B: 0.1 % C: 0.01 % D: 0.001 % Z: Non-Weibull	T = 7" (178 mm) reel

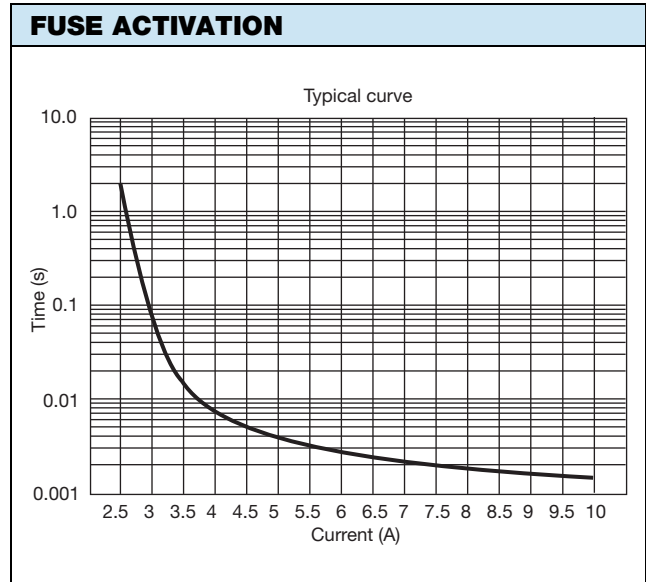
DIMENSIONS in inches [millimeters]							
CASE CODE	EIA SIZE	L	W	H	P	T _w	T _H MIN.
C	6032-28	0.236 ± 0.012 [6.0 ± 0.30]	0.126 ± 0.012 [3.2 ± 0.30]	0.098 ± 0.012 [2.5 ± 0.30]	0.051 ± 0.012 [1.3 ± 0.30]	0.087 ± 0.004 [2.2 ± 0.10]	0.039 [1.0]
D	7343-31	0.287 ± 0.012 [7.3 ± 0.30]	0.170 ± 0.012 [4.3 ± 0.30]	0.110 ± 0.012 [2.8 ± 0.30]	0.051 ± 0.012 [1.3 ± 0.30]	0.095 ± 0.004 [2.4 ± 0.10]	0.039 [1.0]
E	7343-43	0.287 ± 0.012 [7.3 ± 0.30]	0.170 ± 0.012 [4.3 ± 0.30]	0.158 ± 0.012 [4.0 ± 0.30]	0.051 ± 0.012 [1.3 ± 0.30]	0.095 ± 0.004 [2.4 ± 0.10]	0.039 [1.0]

RATINGS AND CASE CODES								
μF	4 V	6 V	10 V	16 V	20 V	25 V	35 V	50 V
0.47								C
0.68								C
1.0								C
1.5							C	C
2.2						C	C	D
3.3						C	C	D
4.7					C	C	D	
6.8				C	C	C	D	
10			C	C	C	C/D	E	
15		C	C	C	D	D	E	
22		C	C	C/D	D	D/E	E	
33		C	C/D	D	E			
47		C	C/D	D/E	E			
68	C	C/D	D/E					
100	C	D/E	D	E				
150	D	D	D/E					
220	D	D/E	E					
330	D/E	E						
470	E							

MARKING

"C, D, E" case sizes

Marking:
 The capacitor shall be marked with an anode (+) polarity band, capacitance (in microfarads) and the rated DC working voltage 85 °C. The capacitance voltage will be separated by the letter "F" indicating a fused capacitor. The Vishay Sprague® trademark is included. A manufacturing date code is marked on all capacitors.





STANDARD RATINGS						
CAPACITANCE (μF)	CASE CODE	PART NUMBER	MAX. DC LEAKAGE AT + 25 °C (μA)	MAX. DF AT + 25 °C 120 Hz (%)	MAX. ESR AT + 25 °C 100 kHz (Ω)	
4 V_{DC} AT + 85 °C; 2.7 V_{DC} AT + 125 °C						
68	C	04053-001(1)(2)	2.7	6	1.600	
100	C	04053-002(1)(2)	4.0	8	1.200	
150	D	04053-003(1)(2)	6.0	8	0.800	
220	D	04053-004(1)(2)	8.8	8	0.700	
330	D	04053-005(1)(2)	13.2	8	0.700	
330	E	04053-006(1)(2)	13.2	8	0.700	
470	E	04053-007(1)(2)	18.8	8	0.500	
6 V_{DC} AT + 85 °C; 4 V_{DC} AT + 125 °C						
15	C	04053-011(1)(2)	0.9	6	2.000	
22	C	04053-013(1)(2)	1.4	6	2.000	
33	C	04053-014(1)(2)	2.0	6	2.000	
47	C	04053-016(1)(2)	2.9	6	1.600	
47	D	04053-015(1)(2)	2.9	6	1.000	
68	C	04053-018(1)(2)	4.1	6	1.200	
68	D	04053-017(1)(2)	4.1	6	1.000	
100	D	04053-020(1)(2)	6.0	8	0.800	
100	E	04053-019(1)(2)	6.0	8	0.900	
150	D	04053-021(1)(2)	9.0	8	0.700	
220	D	04053-022(1)(2)	13.2	8	0.700	
220	E	04053-023(1)(2)	13.2	8	0.700	
330	E	04053-024(1)(2)	19.8	8	0.500	
10 V_{DC} AT + 85 °C; 7 V_{DC} AT + 125 °C						
10	C	04053-028(1)(2)	1.0	6	2.000	
15	C	04053-030(1)(2)	1.5	6	2.000	
22	C	04053-031(1)(2)	2.2	6	2.000	
33	C	04053-033(1)(2)	3.3	6	1.600	
33	D	04053-032(1)(2)	3.3	6	1.000	
47	C	04053-035(1)(2)	4.7	6	1.200	
47	D	04053-034(1)(2)	4.7	6	1.000	
68	D	04053-037(1)(2)	6.8	6	0.800	
68	E	04053-036(1)(2)	6.8	6	0.900	
100	D	04053-038(1)(2)	10.0	8	0.700	
150	D	04053-040(1)(2)	15.0	8	0.700	
150	E	04053-039(1)(2)	15.0	8	0.700	
220	E	04053-041(1)(2)	22.0	8	0.500	
16 V_{DC} AT + 85 °C; 10 V_{DC} AT + 125 °C						
6.8	C	04053-045(1)(2)	1.1	6	2.000	
10	C	04053-047(1)(2)	1.6	6	2.000	
15	C	04053-048(1)(2)	2.4	6	2.000	
22	C	04053-050(1)(2)	3.5	6	1.600	
22	D	04053-049(1)(2)	3.5	6	1.000	
33	D	04053-051(1)(2)	5.3	6	1.000	
47	D	04053-053(1)(2)	7.5	6	0.800	
47	E	04053-052(1)(2)	7.5	6	0.900	
100	E	04053-054(1)(2)	16.0	8	0.700	

Note

- Part number definitions:
 - (1) Reliability grade: B, C, D, Z
 - (2) Packaging codes: T



STANDARD RATINGS						
CAPACITANCE (μF)	CASE CODE	PART NUMBER	MAX. DC LEAKAGE AT + 25 °C (μA)	MAX. DF AT + 25 °C 120 Hz (%)	MAX. ESR AT + 25 °C 100 kHz (Ω)	
20 V_{DC} AT + 85 °C; 13 V_{DC} AT + 125 °C						
4.7	C	04053-058(1)(2)	1.0	6	2.000	
6.8	C	04053-059(1)(2)	1.4	6	2.000	
10	C	04053-060(1)(2)	2.0	6	2.000	
15	D	04053-061(1)(2)	3.0	6	1.000	
22	D	04053-062(1)(2)	4.4	6	1.000	
33	E	04053-063(1)(2)	6.6	6	0.900	
47	E	04053-064(1)(2)	9.4	6	0.300	
25 V_{DC} AT + 85 °C; 17 V_{DC} AT + 125 °C						
2.2	C	04053-068(1)(2)	0.6	6	3.500	
3.3	C	04053-069(1)(2)	0.9	6	2.500	
4.7	C	04053-070(1)(2)	1.2	6	2.500	
6.8	C	04053-071(1)(2)	1.7	6	2.000	
10	C	04053-072(1)(2)	2.5	6	0.600	
10	D	04053-073(1)(2)	2.5	6	1.200	
15	D	04053-074(1)(2)	3.8	6	1.000	
22	D	04053-076(1)(2)	5.5	6	0.800	
22	E	04053-075(1)(2)	5.5	6	0.900	
35 V_{DC} AT + 85 °C; 23 V_{DC} AT + 125 °C						
1.5	C	04053-080(1)(2)	0.5	6	4.500	
2.2	C	04053-081(1)(2)	0.8	6	3.500	
3.3	C	04053-082(1)(2)	1.2	6	2.500	
4.7	D	04053-083(1)(2)	1.7	6	1.500	
6.8	D	04053-084(1)(2)	2.4	6	1.300	
10	E	04053-085(1)(2)	3.5	6	1.000	
15	E	04053-086(1)(2)	5.3	6	0.900	
22	E	04053-087(1)(2)	7.7	6	0.300	
50 V_{DC} AT + 85 °C; 33 V_{DC} AT + 125 °C						
0.47	C	04053-091(1)(2)	0.5	4	8.000	
0.68	C	04053-092(1)(2)	0.5	4	7.000	
1.0	C	04053-093(1)(2)	0.5	4	5.500	
1.5	C	04053-094(1)(2)	0.8	6	5.000	
2.2	D	04053-095(1)(2)	1.1	6	2.500	
3.3	D	04053-096(1)(2)	1.7	6	2.000	

Note

- Part number definitions:
 (1) Reliability grade: B, C, D, Z
 (2) Packaging codes: T



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