Type THF Solid Tantalum Capacitors

Hermetically Sealed Axial Lead Solid Tantalum Capacitors

The Type THF is ideal for use in switching regulators and high frequency power supplies because of its high ripple current and low ESR capabilities. It is an axial lead solid tantalum capacitor constructed with a rugged hermetically sealed metal case, insulated with an outer polyester wrap. The THF assures a small case size for high capacitance, and is extremely stable over the rated temperature range.

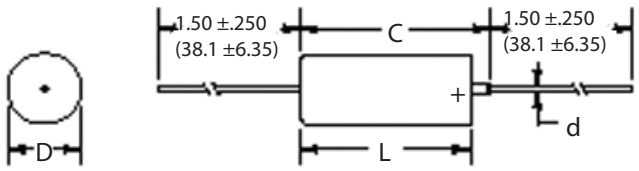
Highlights

- High Ripple Current
- Low ESR
- Lower Impedance at High Frequency
- Extremely Stable Capacitance
- Long Life
- Moisture & Solvent Resistant
- Small Size

Specifications

Capacitance Range	5.6 µF to 330 µF
Capacitance Tolerance	–55 °C to +125 °C (With proper derating)
Rated Voltage	6 WVdc to 50 WVdc @ 85 °C
Operating Temperature Range	±10% (K), ±20% (M) At +25 °C - (See Ratings)
DC Leakage:	At +85 °C - 10 x Ratings limit At +125 °C - 12.5 x Ratings limit
RoHS Compliant	

Outline Drawing



Case Code	Uninsulated D ±.005 (±.13)	Uninsulated L ±.031 (±.79)	Insulated D ±.010 (±.25)	Insulated L ±.031 (±.79)	Inches (mm) C Maximum	Inches (mm) d ±.001 (±.03)	Quantity Per Reel
F	.279(7.09)	.650(16.51)	.289(7.34)	.686(17.42)	.822(20.88)	.025(.64)	500
G	.341(8.66)	.750(19.05)	.351(8.92)	.786(19.96)	.922(23.42)	.025(.64)	400

Part Numbering System

THF	157	M	006	P	1	F	-F
Type	**Capacitance**	**Tolerance**	**Voltage**	**Polar**	**Mylar Sleeve**	**Case Code**	**RoHS Compliant**
THF	**565** = 5.6 µF	**K** = ±10%	**006** = 6 Vdc	**P =** Polar	**1**	**F**	
	186 = 18.6 µF	**M** = ±20%	**020** = 20 Vdc			**G**	
	157 = 150 µF		**050** = 50 Vdc				

Ratings

Cap (µF)	Catalog Part Number	Case Code	Max DCL @ +25 °C (µA)	Max DF % @ +25 °C 1 kz	Max ESR (ohms) @ +25 °C 100 kHz	Max Ripple RMS Amps @ 40 kHz +25°C
			6 WVdc @ 85 °C 4 WVdc @ 125 °C			
150	THF157K006P1F-F	F	4.5	10	0.065	3.3
180	THF187K006P1F-F	F	5.5	10	0.060	3.4
270	THF277K006P1G-F	G	6.5	10	0.050	4.1
330	THF337K006P1G-F	G	7.5	12	0.045	4.3
			10 WVdc @ 85 °C 7 WVdc @ 125 °C			
82	THF826K010P1F-F	F	4	8	0.085	2.9
100	THF107K010P1F-F	F	5	8	0.075	3.0
120	THF127K010P1F-F	F	6	8	0.070	3.2
180	THF187K010P1G-F	G	9	8	0.060	3.7
220	THF227K010P1G-F	G	10	10	0.055	3.9
			15 WVdc @ 85 °C 10 WVdc @ 125 °C			
56	THF566K015P1F-F	F	4	6	0.100	2.6
68	THF686K015P1F-F	F	5	6	0.095	2.7
120	THF127K015P1G-F	G	9	8	0.070	3.5
150	THF157K015P1G-F	G	10	8	0.065	3.6
			20 WVdc @ 85 °C 13 WVdc @ 125 °C			
27	THF276K020P1F-F	F	2.5	5	0.145	2.2
33	THF336K020P1F-F	F	3.5	5	0.130	2.3
39	THF396K020P1F-F	F	4.0	5	0.120	2.4
47	THF476K020P1F-F	F	4.5	6	0.110	2.5
56	THF566K020P1G-F	G	5.5	6	0.100	2.9
68	THF686K020P1G-F	G	7.0	6	0.095	3.0
82	THF826K020P1G-F	G	8.0	6	0.085	3.1
100	THF107K020P1G-F	G	10.0	8	0.075	3.3
			35 WVdc @ 85 °C 23 WVdc @ 125 °C			
10	THF106K035P1F-F	F	4.0	4	0.161	1.5
22	THF226K035P1F-F	F	4.0	4	0.160	2.1
27	THF276K035P1G-F	G	4.5	4	0.145	2.4
33	THF336K035P1G-F	G	5.5	5	0.130	2.5
39	THF396K035P1G-F	G	7.0	5	0.120	2.6
47	THF476K035P1G-F	G	8.0	5	0.110	2.7
			50 WVdc @ 85 °C 33 WVdc @ 125 °C			
5.6	THF565K050P1F-F	F	2.2	3	0.300	1.5
6.8	THF685K050P1F-F	F	2.2	3	0.275	1.6
8.2	THF825K050P1F-F	F	2.5	3	0.250	1.6
10.0	THF106K050P1F-F	F	2.5	3	0.230	1.7
12.0	THF126K050P1F-F	F	3.0	3	0.210	1.8
15.0	THF156K050P1F-F	F	4.0	3	0.190	1.9
18.0	THF186K050P1F-F	F	4.5	4	0.175	2.0

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