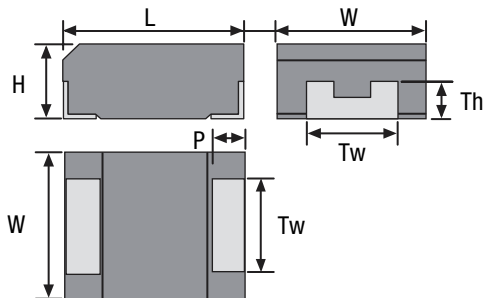


MOLDED CASES SMD – SURFACE MOUNT SN-PB OR SN PLATED – POLARIZED TYPES

DCTC3 / DCTC4
DCTC3E

DIMENSIONS (in mm)

Case code	L	W	H	P	Tw	Th min.
A	3.2±0.2	1.6±0.2	1.6±0.2	0.8±0.3	1.2±0.1	0.7
B	3.5±0.2	2.8±0.2	1.9±0.2	0.8±0.3	2.2±0.1	0.7
C	6.0±0.3	3.2±0.3	2.5±0.3	1.3±0.3	2.2±0.1	1.0
D	7.3±0.3	4.3±0.3	2.8±0.3	1.3±0.3	2.4±0.1	1.0



MARKING, PACKAGING, CONSTRUCTION: see general characteristics

ELECTRICAL AND ENVIRONMENTAL CHARACTERISTICS

	DCTC3	DCTC4	DCTC3E
Operating temp.	-55°C +125°C	-55°C +125°C	-55°C +125°C
Humidity	56 days	56 days	56 days
Capacitance range	0.1 µF - 150 µF	0.1 µF - 100 µF	0.15 µF - 680 µF
Tolerance	20%...10%	20%...10%	20%...10%
Voltage range	4 V...50 V	4 V...50 V	4 V...50 V
High surge current	N/A	1 million cycles	N/A
MAXIMUM CAPACITANCE CHANGE			
-55°C	-10%	-10%	-10%
+85°C	+10%	+10%	+10%
+125°C	+12%	+12%	+15%
MAXIMUM DF			
+20°C	see table	see table	see table
-55°C	= 1.5 x lim 20°C	= 1.5 x lim 20°C	see table
+85°C	= 1.5 x lim 20°C	= 1.5 x lim 20°C	see table
+125°C	= 2.0 x lim 20°C	= 2.0 x lim 20°C	see table
MAXIMUM LEAKAGE CURRENT			
+20°C	see table	see table	see table
+85°C	see table	see table	see table
+125°C	see table	see table	see table
MAXIMUM ESR			
+20°C (100kHz)	-	see table	see table
MAXIMUM IMPEDANCE			
+20°C (100kHz)	see table	-	-
MAXIMUM RIPPLE CURRENT			
+20°C (100kHz)	-	see table	-
MAXIMUM REVERSE VOLTAGE			
+20°C	15% U _R	15% U _R	15% U _R
+85°C	5% U _R	5% U _R	5% U _R
+125°C	1% U _R	1% U _R	1% U _R
MAXIMUM SURGE VOLTAGE			
+85°C	1.3 x U _R	1.3 x U _R	1.3 x U _R
+125°C	1.3 x U _C	1.3 x U _C	1.3 x U _C

MOLDED CASES SMD – SURFACE MOUNT

SN-PB OR SN PLATED – POLARIZED TYPES

STANDARD RATINGS – ELECTRICAL CHARACTERISTICS

		DCTC3 / DCTC4				DCTC3	DCTC4	
Capacitance 100Hz +20°C (µF)	Case Code	Maximum Leakage Current			Max. DF 100kHz +20°C (%)	Max. Imped. 100kHz +20°C (Ω)	Max. ESR 100kHz +20°C (Ω)	Max. I rms 100kHz +20°C (mA)
		+20°C (µA)	+85°C (µA)	+125°C (µA)				
RATED VOLTAGE (+85°C) 4 V - CATEGORY VOLTAGE (+125°C) 2.5 V								
3.3	A	0.5	5	6.2	6	9	9.0	88
4.7	A	0.5	5	6.2	6	8	7.5	97
10	B	0.5	5	6.2	6	4.5	4.0	140
*15	A	0.6	6	7.5	6	4	-	-
15	B	0.6	6	7.5	6	3.5	3.5	150
22	C	0.9	9	11	6	3	2.2	224
*33	B	1.3	13	16	6	3.5	-	-
33	C	1.3	13	16	6	2.5	1.8	247
*68	C	2.7	27	34	6	1.6	-	-
68	D	2.7	27	34	6	1.8	1.0	387
100	D	4	40	50	8	1.5	0.8	433
RATED VOLTAGE (+85°C) 6.3 V - CATEGORY VOLTAGE (+125°C) 4 V								
2.2	A	0.5	5	6.2	6	10	9.0	88
3.3	A	0.5	5	6.2	6	7	7.5	97
6.8	B	0.5	5	6.2	6	4.5	4.0	140
*10	A	0.6	6	7.5	6	4	-	-
10	B	0.6	6	7.5	6	3.5	3.5	150
15	C	0.9	9	11	6	3	2.0	234
*22	B	1.3	13	17	6	3.5	-	-
22	C	1.3	13	17	6	2.5	1.8	247
*47	C	2.9	29.6	37	6	1.6	-	-
47	D	2.9	29.6	37	6	1.8	1.1	365
68	D	4.0	40	50	6	1.5	0.9	408
100	D	6.3	63	78.7	8	1.5	0.8	433
*150	D	9.4	94.5	118	8	0.7	-	-
RATED VOLTAGE (+85°C) 10 V - CATEGORY VOLTAGE (+125°C) 6.3 V								
1.5	A	0.5	5	6.2	6	10.5	8.0	94
2.2	A	0.5	5	6.2	6	7	7.5	97
4.7	B	0.5	5	6.2	6	4.5	4.0	140
6.8	B	0.6	6.8	8.5	6	3.5	3.5	150
10	C	1.0	10	12	6	3	2.0	234
*15	B	1.5	15	18.7	6	3.5	-	-
15	C	1.5	15	18.7	6	2.5	1.8	247
*33	C	3.0	30	37	6	1.6	-	-
33	D	3.0	30	37	6	1.8	0.9	408
47	D	4.7	47	58.7	6	1.5	0.8	433
*68	D	6.8	68	85	6	0.8	-	-
*100	D	10.0	100	125	8	0.7	-	-
RATED VOLTAGE (+85°C) 16 V - CATEGORY VOLTAGE (+125°C) 10 V								
1	A	0.5	5	6.2	4	11	10.0	84
1.5	A	0.5	5	6.2	6	8	8.0	94
*3.3	A	0.5	5	6.2	6	6	-	-
3.3	B	0.5	5	6.2	6	5	4.0	140
4.7	B	0.7	7.5	9.4	6	3.5	3.5	150
*6.8	B	1.1	11	14	6	3.5	-	-
6.8	C	1.1	11	14	6	3	1.9	240
*10	B	1.6	16	20	6	3.5	-	-
10	C	1.6	16	20	6	2.5	1.8	247
*15	C	2.4	24	30	6	1.8	-	-
*22	C	3.5	35	44	6	1.6	-	-
22	D	3.5	35	44	6	1.8	0.9	408
33	D	5.0	50	62	6	1.5	0.8	433
*47	D	7.5	75	94	6	0.8	-	-

* Values do not apply to DCTC4.

STANDARD RATINGS – ELECTRICAL CHARACTERISTICS

		DCTC3 / DCTC4				DCTC3	DCTC4	
Capacitance 100Hz +20°C (μF)	Case Code	Maximum Leakage Current			Max. DF 100kHz +20°C (%)	Max. Imped. 100Hz +20°C (Ω)	Max. ESR 100kHz +20°C (Ω)	Max. I rms 100kHz +20°C (mA)
		+20°C (μA)	+85°C (μA)	+125°C (μA)				
RATED VOLTAGE (+85°C) 20 V - CATEGORY VOLTAGE (+125°C) 13 V								
0.68	A	0.5	5	6.2	4	13	12.0	76
1	A	0.5	5	6.2	4	9	10.0	84
*1.5	A	0.5	5	6.2	6	8	-	-
*2.2	A	0.5	5	6.2	6	7	-	-
2.2	B	0.5	5	6.2	6	6	3.5	150
3.3	B	0.7	7	8.5	6	4.5	3.5	150
*4.7	B	0.9	9	11	6	3.5	-	-
4.7	C	0.9	9	11	6	3	2.4	214
6.8	C	1.3	13.6	17	6	2.5	1.9	240
*10	C	2.0	20	25	6	1.8	-	-
15	D	3.0	30	37	6	1.8	1.0	387
22	D	4.4	44	55	6	1.5	0.8	433
*33	D	6.6	66	82.5	6	0.9	-	-
RATED VOLTAGE (+85°C) 25 V - CATEGORY VOLTAGE (+125°C) 16 V								
0.47	A	0.5	5	6.2	4	14	14.0	71
0.68	A	0.5	5	6.2	4	10	10.0	84
1.5	B	0.5	5	6.2	6	7	5.0	120
3.3	C	0.8	8	10	6	3.5	2.5	209
4.7	C	1.1	11.7	14.6	6	2.8	2.4	214
*6.8	C	1.7	17	21.2	6	1.9	-	-
10	D	2.5	25	31	6	2	1.2	350
15	D	3.7	37.5	46.8	6	1.5	1.0	387
*22	D	5.5	55	68.7	6	0.9	-	-
RATED VOLTAGE (+85°C) 35 V - CATEGORY VOLTAGE (+125°C) 23 V								
0.1	A	0.5	5	6.2	4	28	20.0	54
0.15	A	0.5	5	6.2	4	23	19.0	58
0.22	A	0.5	5	6.2	4	19	18.0	62
0.33	A	0.5	5	6.2	4	15	15.0	68
0.47	B	0.5	5	6.2	4	11	8.0	89
0.68	B	0.5	5	6.2	4	8	6.5	100
1	B	0.5	5	6.2	4	7	5.0	110
1.5	C	0.5	5	6.3	6	6	4.5	156
2.2	C	0.7	7.7	9.6	6	4	3.5	177
3.3	C	1.1	11.5	14.4	6	3	2.5	210
4.7	D	1.6	16	20	6	2.5	1.5	315
6.8	D	2.3	23.8	29.7	6	2	1.3	340
10	D	3.5	35	43.7	6	1.5	1.0	387
RATED VOLTAGE (+85°C) 50 V - CATEGORY VOLTAGE (+125°C) 33 V								
0.1	A	0.5	5	6.2	4	27	20.0	56
0.15	B	0.5	5	6.2	4	22	16.0	69
0.22	B	0.5	5	6.2	4	18	14.0	76
0.33	B	0.5	5	6.2	4	14	10.0	82
0.47	C	0.5	5	6.2	4	9	8.0	117
0.68	C	0.5	5	6.2	4	7	7.0	125
1	C	0.5	5	6.2	4	6	5.5	140
1.5	D	0.7	7.5	9.3	6	5	3.5	195
2.2	D	1.1	11	13.7	6	3.5	2.5	250
3.3	D	1.6	16.5	20.6	6	2	2.0	274
4.7	D	2.3	23.5	29.3	6	1.5	1.4	327

* Values do not apply to DCTC4.