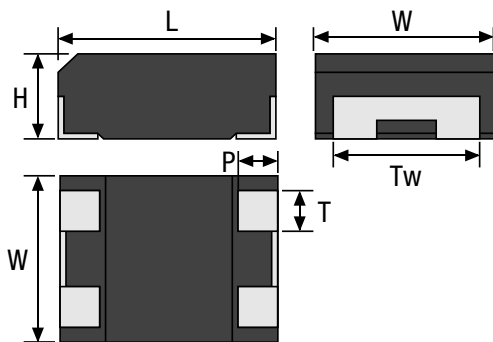


MOLDED CASES SMD – SURFACE MOUNT SN-PB OR SN PLATED – POLARIZED TYPES



DIMENSIONS (in mm)

Case code	L -0.1 +0.5	W -0.1 +0.5	H -0.1 +0.5	P -0.3 +0.3	Tw -0.3 +0.3	T -0.3 +0.3
C	11	9	4.5	1.5	7	2
D	11	12.5	5.5	1.5	10.5	3



MARKING, PACKAGING, CONSTRUCTION: see general characteristics

ELECTRICAL AND ENVIRONMENTAL CHARACTERISTICS

	DCTC21	DCTC21E
Operating temp.	-55°C +125°C	-55°C +125°C
Humidity	56 days	56 days
Capacitance range	5.6 μ F - 330 μ F	10 μ F - 680 μ F
Tolerance	20%...10%	20%...10%
Voltage range	6.3 V...63 V	6.3 V...100V
High surge current	1 million cycles	1 million cycles
MAXIMUM CAPACITANCE CHANGE		
-55°C	-10%	-10%
+85°C	+8%	+8%
+125°C	+12%	+12%
MAXIMUM DF		
+20°C	see table	see table
-55°C	= 2.0 x lim 20°C	= 2.0 x lim 20°C
+85°C	= 1.5 x lim 20°C	= 1.5 x lim 20°C
+125°C	= 1.5 x lim 20°C	= 1.5 x lim 20°C
MAXIMUM LEAKAGE CURRENT		
+20°C	see table	see table
+85°C	see table	see table
+125°C	see table	see table
MAXIMUM RIPPLE CURRENT		
+20°C (1kHz)	see table	see table
+20°C (100kHz)	see table	see table
MAXIMUM REVERSE VOLTAGE		
+20°C	10% U_R	10% U_R
+85°C	5% U_R	5% U_R
+125°C	1% U_R	1% U_R
MAXIMUM SURGE VOLTAGE		
+85°C	1.3 x U_R	1.3 x U_R
+125°C	1.3 x U_C	1.3 x U_C

MOLDED CASES SMD – SURFACE MOUNT POLARIZED TYPES

STANDARD RATINGS – ELECTRICAL CHARACTERISTICS

		DCTC21						
Capacitance 1kHz +20°C (μF)	Case Code	Maximum Leakage Current			Max. DF 1kHz +20°C (%)	Max. ESR 500kHz +20°C (Ω)	Max. I rms	
		+20°C (μA)	+85°C (μA)	+125°C (μA)			1kHz +20°C (A)	500kHz +20°C (A)
RATED VOLTAGE (+85°C) 6.3 V - CATEGORY VOLTAGE (+125°C) 4 V								
120	C	7.6	76	95	8	40	2.5	3.2
150	C	9.4	94	117	10	35	2.0	3.3
270	D	17.0	170	212	10	30	3.4	4.1
330	D	20.8	208	260	12	25	3.8	4.3
RATED VOLTAGE (+85°C) 10 V - CATEGORY VOLTAGE (+125°C) 6.3 V								
82	C	8.2	82	102	8	45	1.8	2.9
100	C	10.0	100	125	8	40	2.2	3.0
180	D	18.0	180	225	8	35	3.4	3.7
220	D	22.0	220	275	10	30	3.4	3.9
RATED VOLTAGE (+85°C) 16 V - CATEGORY VOLTAGE (+125°C) 10 V								
56	C	8.9	89	111	6	55	1.8	2.6
68	C	10.8	108	135	6	50	2.2	2.7
120	D	19.2	192	240	8	40	2.8	3.5
150	D	24.0	240	300	8	35	3.1	3.6
RATED VOLTAGE (+85°C) 20 V - CATEGORY VOLTAGE (+125°C) 13 V								
39	C	7.8	78	97	5	65	1.7	2.4
47	C	9.4	94	117	6	60	1.8	2.5
82	D	16.4	164	205	6	45	2.5	3.1
100	D	20.0	200	250	8	40	2.5	3.3
RATED VOLTAGE (+85°C) 25 V - CATEGORY VOLTAGE (+125°C) 16 V								
27	C	6.7	67	83	5	75	1.2	2.2
33	C	8.2	82	102	5	70	1.4	2.3
56	D	14.0	140	175	6	55	2.2	2.9
68	D	17.0	170	212	6	50	2.4	3.0
RATED VOLTAGE (+85°C) 40 V - CATEGORY VOLTAGE (+125°C) 25 V								
22	C	8.8	88	110	4	85	1.5	2.1
33	D	13.2	132	165	5	70	1.9	2.5
47	D	18.8	188	235	5	60	2.2	2.7
RATED VOLTAGE (+85°C) 50 V - CATEGORY VOLTAGE (+125°C) 32 V								
15	C	7.5	75	93	3	100	1.4	1.9
18	C	9.0	90	112	4	90	1.4	2.0
22	D	11.0	110	137	4	85	1.7	2.3
RATED VOLTAGE (+85°C) 63 V - CATEGORY VOLTAGE (+125°C) 40 V								
5.6	C	3.5	35	44	3	155	0.6	1.5
6.8	C	4.2	42	53	3	140	0.7	1.6
8.2	C	5.1	51	64	3	130	0.9	1.6
10	C	6.3	63	78	3	120	1.1	1.7
18	D	11.3	113	141	4	90	1.5	2.1
22	D	13.8	138	173	4	85	1.7	2.3

TERMINATIONS

Four plating finishes may be achieved.

STANDARD TERMINATION:

T: Tinning electrolytic (Sn - Pb)

UPON REQUEST:

S: Hot solder dipped (add 0.4 mm to dimensions L and H)

A: Silver plating for epoxy bonding

F: Tinning electrolytic (100% Sn)

HOW TO ORDER

Ex.: DCTC21 C 33 μF 10% 25 V T

STANDARD RATINGS – ELECTRICAL CHARACTERISTICS (EXTENDED RANGE)

		DCTC 21E						
Capacitance 1kHz +20°C (μF)	Case Code	Maximum Leakage Current			Max. DF 1kHz +20°C (%)	Max. ESR 500kHz +20°C (Ω)	Max. I rms	
		+20°C (μA)	+85°C (μA)	+125°C (μA)			1kHz +20°C (A)	500kHz +20°C (A)
RATED VOLTAGE (+85°C) 6.3 V - CATEGORY VOLTAGE (+125°C) 4 V								
270	C	17.0	170	212	16	45	2.0	2.9
330	C	20.8	208	260	20	45	2.0	2.9
560	D	35.3	353	441	24	35	2.5	3.6
680	D	42.8	428	535	30	35	2.5	3.6
RATED VOLTAGE (+85°C) 10 V - CATEGORY VOLTAGE (+125°C) 6.3 V								
180	C	18.0	180	225	12	50	1.9	2.7
220	C	22.0	220	275	12	45	2.0	2.9
390	D	39.0	390	487	20	35	2.5	3.6
470	D	47.0	470	587	22	35	2.5	3.6
RATED VOLTAGE (+85°C) 16 V - CATEGORY VOLTAGE (+125°C) 10 V								
120	C	19.2	192	240	10	55	1.8	2.6
150	C	24.0	240	300	12	50	2.0	2.9
270	D	43.2	432	540	16	45	2.3	3.5
330	D	52.8	528	660	20	45	2.5	3.6
RATED VOLTAGE (+85°C) 20 V - CATEGORY VOLTAGE (+125°C) 13 V								
82	C	16.4	164	205	6	65	1.7	2.4
100	C	20.0	200	250	8	60	1.7	2.5
180	D	36.0	360	450	12	50	2.1	3.0
220	D	44.0	440	550	12	45	2.2	3.1
RATED VOLTAGE (+85°C) 25 V - CATEGORY VOLTAGE (+125°C) 16 V								
39	C	9.7	97	121	5	95	1.4	2.0
47	C	11.7	117	146	6	85	1.5	2.1
82	D	20.5	205	256	6	65	1.8	2.6
100	D	25.0	250	312	8	60	1.9	2.7
RATED VOLTAGE (+85°C) 40 V - CATEGORY VOLTAGE (+125°C) 25 V								
33	C	13.2	132	165	5	100	1.3	1.9
56	D	22.4	224	280	6	80	1.6	2.3
68	D	27.2	272	340	6	75	1.7	2.4
RATED VOLTAGE (+85°C) 50 V - CATEGORY VOLTAGE (+125°C) 32 V								
22	C	11.0	110	137	5	125	1.2	1.7
47	D	23.5	235	293	6	85	1.6	2.3
RATED VOLTAGE (+85°C) 63 V - CATEGORY VOLTAGE (+125°C) 40 V								
12	C	7.5	75	93	5	160	1.1	1.5
15	C	9.4	94	117	5	145	1.1	1.6
33	D	20.8	208	260	5	100	1.5	2.1
RATED VOLTAGE (+85°C) 100 V - CATEGORY VOLTAGE (+125°C) 63 V								
10	C	10.0	100	125	5	175	1.0	1.4
22	D	22.0	220	275	5	125	1.3	1.9

Note: Please consult us for use above 125°C.

PACKING

Standard: Bulk

Optional: Tape & reel

When ordering add the suffix "R" just after the termination code.

HOW TO ORDER

Ex.: DCTC21E C 33μF 10% 40 V T R