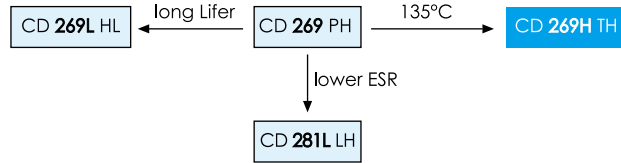


# CD 269H TH SERIES



4000h at 135°C

- High Reliability at High Temperature
- Automotive
- Professional Long-Life Applications

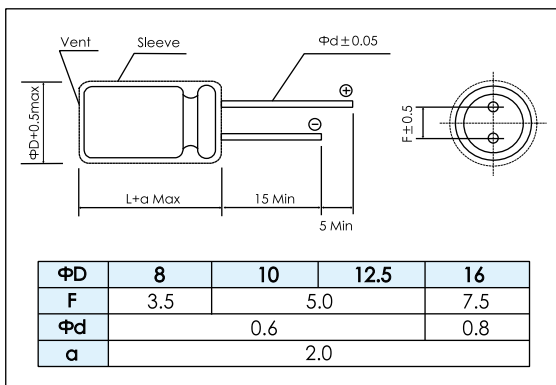


Items	Characteristics																					
Operating Temperature Range(°C)	-55 ~ +135																					
Rated Voltage Range(V)	10 ~ 63																					
Capacitance Range(μF)	10 ~ 4700																					
Capacitance Tolerance (20°C,120Hz)	±20%																					
Leakage Current (μA)	After 2 minutes at 20°C application of rated voltage, leakage current is not more than 0.03CV C:Nominal Capacitance(μF) V:Rated Voltage(V)																					
Dissipation Factor (20°C, 120Hz)	<table border="1"> <thead> <tr> <th>Rated Voltage (v)</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>tan δ (max)</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> </tr> </tbody> </table>	Rated Voltage (v)	10	16	25	35	50	63	tan δ (max)	0.20	0.16	0.14	0.12	0.10	0.10							
	Rated Voltage (v)	10	16	25	35	50	63															
tan δ (max)	0.20	0.16	0.14	0.12	0.10	0.10																
For Capacitances >1000μF add 0.02 to every 1000μF																						
Low Temperature Stability Impedance Ratio(Max) (20°C, 120Hz)	<table border="1"> <thead> <tr> <th>Rated Voltage(V)</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/ Z(+20°C)</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C)/ Z(+20°C)</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> </tbody> </table>	Rated Voltage(V)	10	16	25	35	50	63	Z(-25°C)/ Z(+20°C)	3	2	2	2	2	2	Z(-40°C)/ Z(+20°C)	4	4	4	4	4	4
	Rated Voltage(V)	10	16	25	35	50	63															
	Z(-25°C)/ Z(+20°C)	3	2	2	2	2	2															
Z(-40°C)/ Z(+20°C)	4	4	4	4	4	4																

	Useful Life		Load Life	Endurance Test	Shelf Life
Life Time	ΦD=8,10: 4000h ΦD≥12.5: 8000h	≥180000h	ΦD=8,10: 2000h ΦD≥12.5: 4000h	ΦD=8,10: 3000h ΦD≥12.5: 5000h	1000h
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value
Capacitance Change	Within ±50% of initial value		Within ± 30% of initial value	Within ± 30% of initial value	Within ± 20% of initial value
Dissipation Factor	Not more than 500% of specified value		Not more than 300% of specified value	Not more than 300% of specified value	Not more than 200% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	U <sub>R</sub> I <sub>R</sub> 135°C	U <sub>R</sub> 1.4xI <sub>R</sub> 60°C	U <sub>R</sub> I <sub>R</sub> 135°C	U <sub>R</sub> I <sub>R</sub> = 0 135°C	U <sub>R</sub> = 0 I <sub>R</sub> = 0 135°C  After test: U <sub>R</sub> to be applied for 30min >24h before measurement

## Dimensions

mm



## Frequency Coefficient

CV	Frequency(Hz)			
	120	300	1K	10K
CV < 1000	0.50	0.64	0.83	1.00
CV ≥ 1000	0.67	0.79	0.91	1.00

## Temperature Coefficient

Temperature (°C)	+95	+105	+115	+125	+135
≤ 50V	2.4	2.2	2.0	1.7	1.0
63V	2.0	1.75	1.55	1.3	1.0

## Ratings for CD 269H TH Series

$U_r$ (Surge Voltage) Code	Rated Capacitance	Max Impedance 20°C, 100KHz	Rated Ripple Current 135°C, 100KHz	Size $\Phi D \times L$	P/N
(V)	( $\mu F$ )	( $\Omega$ )	(mA rms)	(mm)	-
10 (13) 1A	220	0.26	340	8×11.5	ECR1ATH221M □□080011
	330	0.15	620	10×12.5	ECR1ATH331M □□100012
	470	0.10	680	10×12.5	ECR1ATH471M □□100012
	1000	0.057	1100	10×20	ECR1ATH102M □□100020
	2200	0.061	1750	12.5×25	ECR1ATH222M □□125025
	3300	0.024	2300	16×25	ECR1ATH332M □□160025
	4700	0.020	2710	16×31.5	ECR1ATH472M □□160031
16 (20) 1C	100	0.32	340	8×11.5	ECR1CTH101M □□080011
	220	0.15	620	10×12.5	ECR1CTH221M □□100012
	330	0.10	680	10×12.5	ECR1CTH331M □□100012
	470	0.075	945	10×16	ECR1CTH471M □□100016
	1000	0.042	1490	12.5×20	ECR1CTH102M □□125020
	2200	0.024	2300	16×25	ECR1CTH222M □□160025
	3300	0.020	2710	16×31.5	ECR1CTH332M □□160031
25 (32) 1E	100	0.13	500	8×11.5	ECR1ETH101M □□080011
	220	0.10	680	10×12.5	ECR1ETH221M □□100012
	330	0.075	945	10×16	ECR1ETH331M □□100016
	470	0.057	1100	10×20	ECR1ETH471M □□100020
	1000	0.033	1750	12.5×25	ECR1ETH102M □□125025
	2200	0.020	2710	16×31.5	ECR1ETH222M □□160031
	100	0.15	620	10×12.5	ECR1VTH101M □□100012
35 (44) 1V	220	0.094	790	10×16	ECR1VTH221M □□100016
	330	0.075	950	10×20	ECR1VTH331M □□100020
	470	0.058	1330	12.5×20	ECR1VTH471M □□125020
	1000	0.031	2010	16×25	ECR1VTH102M □□160025
	50 (63) 1H	4.7	1.15	85	8×11.5
10		0.75	180	8×11.5	ECR1HTH100M □□080011
22		0.50	250	8×11.5	ECR1HTH220M □□080011
33		0.45	300	8×11.5	ECR1HTH330M □□080011
47		0.35	440	8×11.5	ECR1HTH470M □□080011
100		0.18	555	10×12.5	ECR1HTH101M □□100012
220		0.098	930	10×20	ECR1HTH221M □□100020
330		0.07	1330	12.5×20	ECR1HTH331M □□125020
470		0.055	1650	12.5×25	ECR1HTH471M □□125025
1000		0.031	2430	16×31.5	ECR1HTH102M □□160031
63 (79) 1J	22	2.00	130	8×11.5	ECR1JTH220M □□080011
	33	1.50	150	8×11.5	ECR1JTH330M □□080011
	47	0.59	530	10×12.5	ECR1JTH470M □□100012
	100	0.41	690	10×16	ECR1JTH101M □□100016
	220	0.16	1050	12.5×20	ECR1JTH221M □□125020
	330	0.12	1290	12.5×25	ECR1JTH331M □□125025
	470	0.097	1460	12.5×31.5	ECR1JTH471M □□125031
	1000	0.055	1900	16×31.5	ECR1JTH102M □□160031

MINIATURE

Customer products are available on request.

## Typical Curves

