

5000h at 105°C

- Features
 - Long Useful Life at 105°C
 - Higher current and High Reliability
 - RoHS Compliant
- Applications
 - Highest Professional Power
 - Application



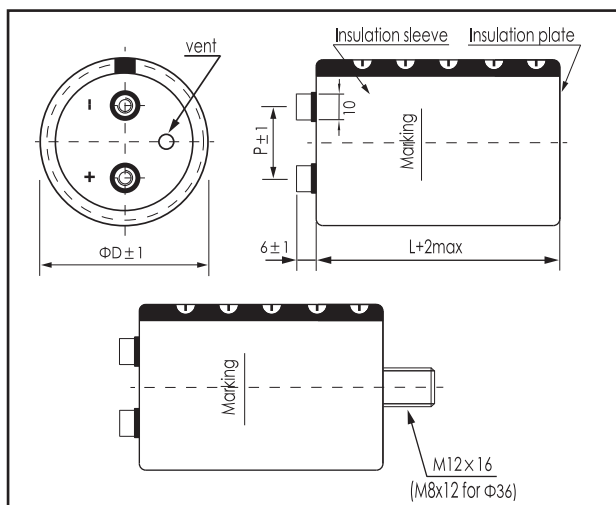
SCREW

Items	Characteristics
Operating Temperature Range (°C)	-40 ~ +105
Voltage Range (V)	350 ~ 450
Capacitance Range (µF)	2200 ~ 15000
Capacitance Tolerance (20°C, 120Hz)	± 20%
Leakage Current (µA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 5mA, whichever is smaller. C: Nominal Capacitance (µF) V: Rated Voltage (V)
Dissipation Factor (20°C, 120Hz)	Less than 0.15
Stability at Low Temperature (120Hz)	$C_{-25°C} / C_{+20°C} \geq 0.7$

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	>9000h	>200000h	5000h	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 ± 30% of initial value		Within ± 20% of initial value	Within ± 10% of initial value	Within ± 20% of initial value
Dissipation Factor	Not more than 300% of specified value		Not more than 200% of specified value	Not more than 130% of specified value	Not more than 200% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	U_R I_R 105°C	U_R $1.2 \times I_R$ 40°C	U_R I_R 105°C	U_R $I_R = 0$ 105°C	After test: U_R to be applied for 60min >24h before measurement

Dimensions

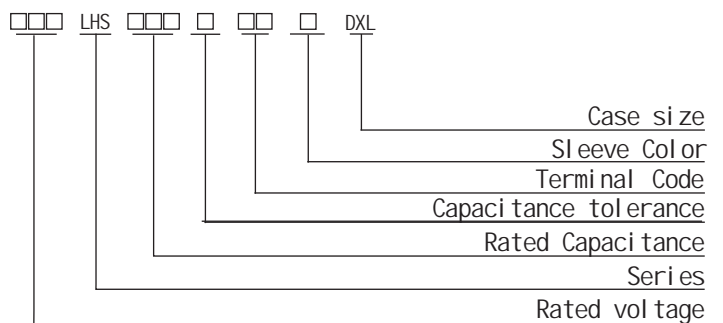
mm



ΦD/mm	51	64	77	90	101
P/mm	22.0	28.2	31.4	31.4	41.5

*Hex head screw M5 x 10 and M6 x 12 are standard screws. Longer screws are available on request.
 *Max tightening torque for screw terminal M5: 3Nm, M6: 4Nm. Max torque for bolt mounting M12: 12.5Nm.
 *Screws, Bracket and cap nut will be delivered separately. See "Accessories" for shape and dimensions.

Part Number System



Ripple Current Coefficient

Frequency (Hz)	50/60	120	300	1k	>10k
Coefficient	0.80	1.00	1.10	1.30	1.40

Ambient Temp (°C)	40	60	85	105
Coefficient	2.44	2.16	2.00	1.00

The useful life can be prolonged by operating capacitor at loads below the rated values (e.g. lower operating voltage, Rms ripple current or ambient temperature) and by appropriate cooling measures.
 It is advisable not to apply a ripple current exceeding the rated ripple current without any cooling measures as this will shorten capacitor's life.

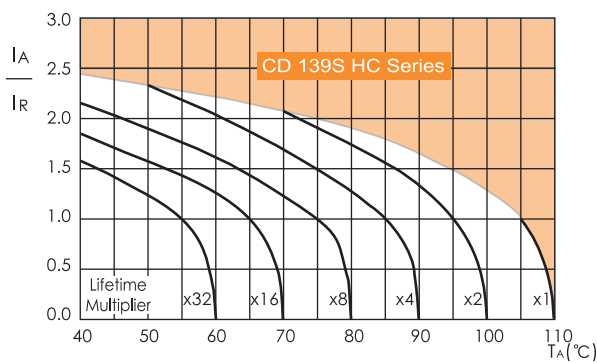
Ratings for CD 139S Series

SCREW

U_R (Surge Voltage) Code	Rated Capacitance	Max.ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C,120Hz	Size ΦD x L
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)
350 (400) 2V	3300	55	23	14.4	64×115
	3900	46	19	16.6	64×130
	4700	39	17	19.8	64×155
	4700	39	17	19.1	77×115
	5600	32	14	21.9	77×130
	6800	27	12	26.2	77×155
	8200	22	11	29.3	90×157
	10000	18	10	32.3	90×157
400 (450) 2G	12000	15	8	39.0	90×196
	2700	56	28	13.1	64×115
	3300	46	23	15.2	64×130
	3900	39	21	17.9	64×155
	3900	39	21	18.2	77×115
	4700	32	17	20.1	77×130
	5600	27	15	23.8	77×155
	6800	22	13	26.7	90×157
450 (500) 2W	8200	18	11	29.3	90×157
	10000	15	9	35.6	90×196
	2200	69	38	11.8	64×115
	2700	56	31	13.7	64×130
	2700	56	31	14.5	77×115
	3300	46	23	16.5	64×155
	3300	46	25	16.9	77×130
	4700	32	18	21.7	77×155
	5600	27	16	26.4	77×195
	5600	27	16	24.2	90×157
6800	22	14	29.5	90×196	
8200	19	12	32.4	90×196	

Mounting code("B" for bolt mounting, "Y/I/N" for bracket mounting)
Terminal options(A,B,C see "Dimensions" for details.)

Lifetime Diagram



I_A = actual ripple current at 120Hz, I_R = rated ripple current at 120Hz, 105°C
Multiplier of Useful Life as a function of ambient temperature and ripple current load

Capacitor diameter d(mm)	length l(mm)	Packing units (pcs.)	
51	all	42	
63.5	all	30	
77	all	12	15
89	all	8	
100	all	6	