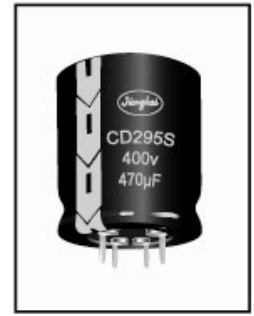
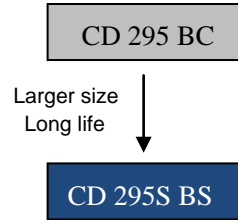




# CD295S BS SERIES

## 5000 hours at 85°C

- Larger Size Components
- Long Useful Life
- High Ripple Current
- Industrial Power Supplies
- Voltage derating ( $0.93 \cdot V_R$ ) enables 105°C operation

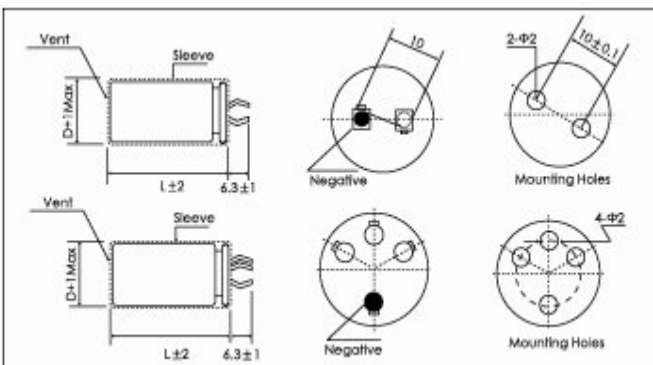


Items	Characteristics			
Operating Temperature Range(°C)	-40 ~ +85		-25 ~ +85	
Voltage Range (V)	160~400		450 ~ 500	
Capacitance Range(µF)	390~4700			
Capacitance Tolerance (20°C,120Hz)	±20%			
Leakage Current (µA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 1.5mA, whichever is smaller C:Nominal Capacitance(µF) V:Rated Voltage(V)			
Dissipation Factor (20°C, 120Hz)	WV(V)	160~500		
	Tan δ	0.15		
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	160~200	250~400	450~500
	$Z_{-25^\circ\text{C}} / Z_{+20^\circ\text{C}}$	3	4	
	$Z_{-40^\circ\text{C}} / Z_{+20^\circ\text{C}}$	6	8	-

Life Time	Useful Life		Load Life	Endurance Life	Shelf Life
		12000h	>100000h	5000h	7000h
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 ±20% of initial value	Within ±20% of initial value
Dissipation Factor	No more than 300% of specified value		Not more than 200% of specified value	Not more than 200% of specified value	Not more than 200% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	Ur Ir 85°C	Ur 1.2xIr 40°C	Ur Ir 85°C	Ur Ir=0 85°C	Ur=0 Ir=0 85°C  After test: Ur to be applied for 30min>24h before measurement

## Dimensions

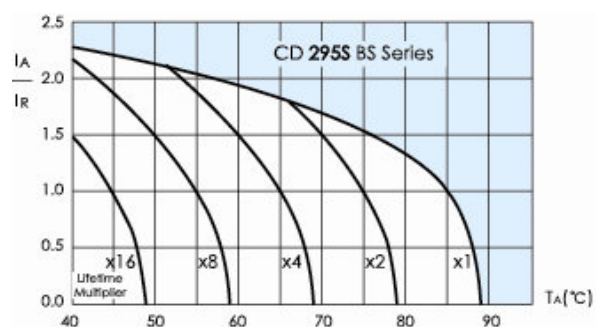
mm



## Frequency Coefficient

Frequency (Hz)	50/60	120	300	1K	10K	≥50K
Factor	0.80	1.00	1.16	1.30	1.41	1.45

## Lifetime Diagram



$I_A$  = actual ripple current at 120Hz,  $I_R$  = rated ripple current at 120Hz, 85°C  
Multiplier of Useful Life as a function of ambient temperature and ripple current load

## Temperature Coefficient

Temperature( °C )	+40	+55	+70	+85
Factor	2.3	2.1	1.75	1.0



# CD295S BS SERIES

## Ratings for CD 295S BS series

U <sub>R</sub> (Surge Voltage) Code	Rated Capacitance	Max. ESR 20°C,120Hz	Typ. ESR 20°C,120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD×L	P/N.	
(v)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-	
160 (200) 2C	2200	91	63	4.9	35x45	ECS2CBS222M□□350045	
	2700	74	52	5.3	35x50	ECS2CBS272M□□350050	
	3300	60	42	5.5	35x70	ECS2CBS332M□□350070	
		60	42	5.5	40x60	ECS2CBS332M□□400060	
	3900	51	36	5.9	35x80	ECS2CBS392M□□350080	
	4700	42	30	7.3	40x80	ECS2CBS472M□□400080	
200 (250) 2D	1500	133	93	4.3	35x40	ECS2DBS152M□□350040	
	1800	111	77	4.7	35x45	ECS2DBS182M□□350045	
	2200	91	63	5.4	35x50	ECS2DBS222M□□350050	
		91	63	5.4	40x40	ECS2DBS222M□□400040	
	2700	74	52	5.9	35x60	ECS2DBS272M□□350060	
		74	52	5.9	40x50	ECS2DBS272M□□400050	
	3300	60	42	6.5	35x80	ECS2DBS332M□□350080	
		60	42	6.5	40x60	ECS2DBS332M□□400060	
	3900	51	36	7.0	40x80	ECS2DBS392M□□400080	
	4700	42	30	9.2	40x90	ECS2DBS472M□□400090	
250 (300) 2E	1000	199	139	3.7	35x40	ECS2EBS102M□□350040	
	1200	166	116	3.8	35x45	ECS2EBS122M□□350045	
	1500	133	93	4.4	35x50	ECS2EBS152M□□350050	
		133	93	4.5	40x40	ECS2EBS152M□□400040	
	1800	111	77	5.0	35x70	ECS2EBS182M□□350070	
		111	77	5.0	40x50	ECS2EBS182M□□400050	
	2200	91	63	5.4	35x70	ECS2EBS222M□□350070	
	2700	74	52	6.9	40x80	ECS2EBS272M□□400080	
350 (400) 2V	680	293	205	3.6	35x45	ECS2VBS681M□□350045	
		293	205	3.6	40x40	ECS2VBS681M□□400040	
	820	243	170	4.5	35x60	ECS2VBS821M□□350060	
		243	170	4.5	40x50	ECS2VBS821M□□400050	
	1000	199	139	5.2	35x70	ECS2VBS102M□□350070	
		199	139	4.9	40x60	ECS2VBS102M□□400060	
	1200	166	116	5.5	35x80	ECS2VBS122M□□350080	
		166	116	5.6	40x70	ECS2VBS122M□□400070	
	1500	133	93	6.5	40x80	ECS2VBS152M□□400080	
		133	93	6.2	45x70	ECS2VBS152M□□450070	
	1800	111	77	7.9	40x100	ECS2VBS182M□□400100	
		111	77	7.1	45x70	ECS2VBS182M□□450070	
	2200	91	63	8.7	40x100	ECS2VBS222M□□400100	
	400 (450) 2G	560	355	249	3.2	35x50	ECS2GBS561M□□350050
355			249	2.8	40x40	ECS2GBS561M□□400040	
680		293	205	3.7	35x60	ECS2GBS681M□□350060	
		293	205	3.8	40x50	ECS2GBS681M□□400050	
820		243	170	4.2	35x60	ECS2GBS821M□□350060	
		243	170	4.1	40x50	ECS2GBS821M□□400050	
1000		199	139	4.9	35x70	ECS2GBS102M□□350070	
		199	139	4.8	40x60	ECS2GBS102M□□400060	
		199	139	4.6	45x50	ECS2GBS102M□□450050	
1200		166	116	5.8	35x80	ECS2GBS122M□□350080	
		166	116	5.5	40x70	ECS2GBS122M□□400070	
1500		133	93	6.9	40x80	ECS2GBS152M□□400080	
		133	93	6.6	45x70	ECS2GBS152M□□450070	
		133	93	6.8	45x80	ECS2GBS152M□□450080	
1800		111	77	7.9	40x90	ECS2GBS182M□□400090	
		111	77	7.3	45x80	ECS2GBS182M□□450080	
450 (500) 2W		470	424	296	3.0	35x50	ECS2WBS471M□□350050
			424	296	3.0	40x40	ECS2WBS471M□□400040
	560	355	249	3.1	35x50	ECS2WBS561M□□350050	
		355	249	3.3	35x60	ECS2WBS561M□□350060	
		355	249	3.4	40x50	ECS2WBS561M□□400050	
	680	293	205	3.5	35x60	ECS2WBS681M□□350060	
		293	205	3.8	35x70	ECS2WBS681M□□350070	
		293	205	3.8	40x60	ECS2WBS681M□□400060	
	820	243	170	4.6	35x80	ECS2WBS821M□□350080	
		243	170	4.4	40x60	ECS2WBS821M□□400060	



# CD295S BS SERIES

Ratings for CD 295S BS series

U <sub>R</sub> (Surge Voltage) Code	Rated Capacitance	Max. ESR 20°C, 120Hz	Typ. ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD×L	P/N.
(v)	(uF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
<b>450 (500) 2w</b>	1000	199	139	5.7	35x80	ECS2WBS102M□□350080
		199	139	5.2	40x60	ECS2WBS102M□□400060
	1200	166	116	5.9	40x70	ECS2WBS122M□□400070
		166	116	6.2	45x70	ECS2WBS122M□□450070
	1500	133	93	7.3	40x100	ECS2WBS152M□□400100
		133	93	7.0	45x80	ECS2WBS152M□□450080
1800	111	77	7.9	45x100	ECS2WBS182M□□450100	
<b>500 (550) 2H</b>	390	510	357	1.9	35x50	ECS2HBS391M□□350050
	470	424	296	2.3	35x60	ECS2HBS471M□□350060
		355	249	2.5	35x60	ECS2HBS561M□□350060
	560	355	249	2.7	40x60	ECS2HBS561M□□400060
		293	205	3.1	35x80	ECS2HBS681M□□350080
	680	293	205	2.8	40x70	ECS2HBS681M□□400070
		243	170	3.4	35x90	ECS2HBS821M□□350090
	820	243	170	3.3	40x70	ECS2HBS821M□□400070
		199	139	3.9	40x80	ECS2HBS102M□□400080
	1000	199	139	3.9	45x70	ECS2HBS102M□□450070
		166	116	4.3	40x90	ECS2HBS122M□□400090
	1500	133	93	4.8	40x100	ECS2HBS152M□□400100

Customer products are available on request.