

# TS13E CD139

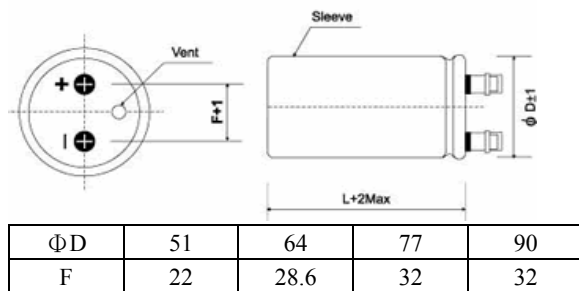
**FEATURES**

- Warranty of 5000 hours at 105°C

◆ Specifications

I T E M S		P E R F O R M A N C E C H A R A C T E R I S T I C S	
Rated Voltage Range(V)	350, 400, 450V		
Operating Temperature Range(°C)	-40~+105°C		
Capacitance Tolerance(20°C,120Hz)	±20%		
Dissipation Factor(20°C,120Hz)	0.15		
Leakage current(μA)	0.01CV or 5mA, whichever is smaller. (at 20°C,after 5 minutes) C: Nominal capacitance ( μ F ) V: Rated voltage(V)		
Load Life (+105°C)	Time	5000 hours	
	Leakage Current	Not more than the specified value.	
	Capacitance Change	Within±15% of the initial value	
	Dissipation Factor	Not more than 175% of the specified value.	
Shelf Life (+85°C)	Time	1000 hours	
	Leakage Current	Not more than the specified value.	
	Capacitance Change	Within ±15% of the initial value	
	Dissipation Factor	Not more than 175% of the specified value.	
After Test: U <sub>R</sub> to be applied for 30 minutes, 12 to 24 hours before measurement			

◆ Dimensions



◆ Multiplier for ripple current

Frequency coefficient

Frequency(Hz)	50,60	120	300	1K	≥10K
Factor	0.7	1.0	1.1	1.3	1.4

Temperature coefficient

Temperature(°C)	+40	+60	+70	+85	+1085
Factor	3.8	3.0	2.5	2.0	1.00

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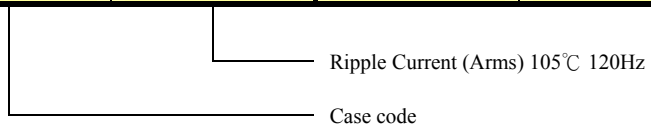
■CASE CODE (mm)

L D	53	64	65	75	83	96	100	105	109	115	121	130	131
36	A5	--	A6	--	A8	--	A10	--	--	--	A12	--	--
51	--	C7R	--	C8R	C8	C10R	C10	--	C11	C12R	X12	C13R	--
64	--	--	--	--	--	D10R	D10	D11	--	D12R	D12	D13R	--
77	--	--	--	--	--	E10R	--	--	--	E12R	E12	E13R	--
90	--	--	--	--	--	--	--	--	--	--	--	--	F13R
101	--	--	--	--	--	--	--	--	--	--	--	--	--

L D	144	145	155	157	160	161	171	175	195	196	236	237
36	--	--	--	--	--	--	--	--	--	--	--	--
51	--	--	--	--	--	--	--	--	--	--	--	--
64	D15	--	D16R	--	--	--	--	--	D20R	--	--	--
77	E15	--	E16R	--	E16	--	E17R	--	E20R	--	--	--
90	--	F15	--	F16R	--	F16	F17R	--	--	F20R	F24R	--
101	--	--	--	--	--	--	--	G18R	--	G20R	--	G24R

■STANDARD RATINGS

Cap	WV SV (V)	350		400		450	
		400		450		500	
1000		C8R	3.9	C8R	3.9	C10R	4.2
1200		C8R	4.2	C10R	4.6	C12R	5.0
1500		C10R	5.2	C12R	5.6	C13R	5.9
1800		C10R	5.7	C13R	6.4	D10R	6.3
2200		C13R	7.1	D10R	6.9	D12R	7.4
2700		D10R	7.7	D12R	8.2	D13R	8.6
						E12R	8.7
3300		D12R	9.1	D13R	9.5	D16R	10.2
						E13R	10.1
3900		D13R	10.4	D16R	11.1	D20R	12.3
				E12R	10.4		
4700		D16R	12.2	D20R	13.4	E16R	12.9
		E12R	11.5	E13R	12.0		
5600		D20R	14.6	D20R	14.6	E20R	15.4
		E13R	13.1	E16R	14.0	F16R	14.9
6800		E16R	15.5	E16R	16.5	F20R	18.0
8200		F16R	18.1	F16R	18.1	F20R	19.8
10000		F16R	19.9	F20R	21.7	F24R	23.6
12000		F20R	23.8	F24R	25.8	--	--
15000		F24R	28.8	--	--	--	--



Note: Specification are subject to change without notice. For more detail and update, please visit our website.