

●長壽命品

OPSシリーズ

JIS C 5101
CE-04

●Long Life Assurance

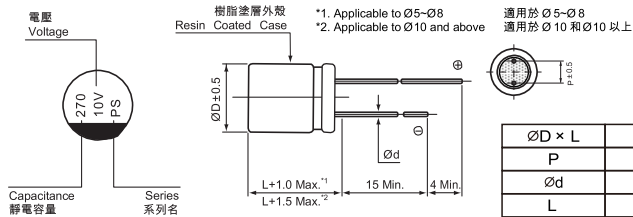
TYPE OPS

JIS C 5101
CE-04

■FEATURES

- Operating with wide temperature range $-55\sim+105^{\circ}\text{C}$
- Long life assurance
- Load life of 5000 hours
- RoHS & REACH compliant, Halogen-free

■寸法図/DIAGRAM OF DIMENSIONS



■性能/PERFORMANCE SPECIFICATIONS

カテゴリー温度範囲	CATEGORY TEMPERATURE RANGE	$-55 \sim +105^{\circ}\text{C}$										
標準静電容量許容差	STANDARD CAPACITANCE TOLERANCE	$\pm 20\%$ at 120KHz, 20°C										
漏れ電流 (最大値)	LEAKAGE CURRENT (MAX.VALUE)	\leq Specified value (after 2 minutes application of rated voltage at 20°C)										
損失角の正接 (最大値)	DISSIPATION FACTOR (MAX.VALUE)	\leq Specified value at 120KHz, 20°C .										
E.S.R	E.S.R.	\leq Specified value at 100KHz, 20°C .										
低温特性	Stability at Low Temperature	Measurement frequency 測試頻率: 100KHz <table border="1"> <tr> <td>Impedance Ratio 阻抗比 $ZT/Z20$ (max)</td> <td>$Z(+105^{\circ}\text{C})/Z(20^{\circ}\text{C}) \leq 1.25$ $Z(-55^{\circ}\text{C})/Z(20^{\circ}\text{C}) \leq 1.25$</td> </tr> </table>	Impedance Ratio 阻抗比 $ZT/Z20$ (max)	$Z(+105^{\circ}\text{C})/Z(20^{\circ}\text{C}) \leq 1.25$ $Z(-55^{\circ}\text{C})/Z(20^{\circ}\text{C}) \leq 1.25$								
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耐久性	LOAD LIFE TEST	<table border="1"> <tr> <td>Capacitance Change</td> <td>Within $\pm 20\%$ of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>150% or less of initial specified value</td> </tr> <tr> <td>ESR</td> <td>150% or less of initial specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Initial specified value or less</td> </tr> </table> After 3000 hours application of the rated voltage at 105°C , they meet the characteristics listed below.	Capacitance Change	Within $\pm 20\%$ of initial value	Dissipation Factor	150% or less of initial specified value	ESR	150% or less of initial specified value	Leakage Current	Initial specified value or less		
Capacitance Change	Within $\pm 20\%$ of initial value											
Dissipation Factor	150% or less of initial specified value											
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Leakage Current	Initial specified value or less											
	MOISTURE RESISTANCE	After reflow soldering and restored at room temperature, they meet the characteristics listed below.										
定格リップル電流補正係数	RIPPLE CURRENT & FREQUENCY MULTIPLIERS	<table border="1"> <thead> <tr> <th>Frequency(Hz)</th> <th>$120\text{Hz} \leq f \leq 1\text{KHz}$</th> <th>$1\text{KHz} \leq f \leq 10\text{KHz}$</th> <th>$10\text{KHz} \leq f \leq 100\text{KHz}$</th> <th>$100\text{KHz} \leq f \leq 300\text{KHz}$</th> </tr> </thead> <tbody> <tr> <td>Coefficient</td> <td>0.10</td> <td>0.40</td> <td>0.70</td> <td>1.00</td> </tr> </tbody> </table>	Frequency(Hz)	$120\text{Hz} \leq f \leq 1\text{KHz}$	$1\text{KHz} \leq f \leq 10\text{KHz}$	$10\text{KHz} \leq f \leq 100\text{KHz}$	$100\text{KHz} \leq f \leq 300\text{KHz}$	Coefficient	0.10	0.40	0.70	1.00
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■定格リップル電流補正係数

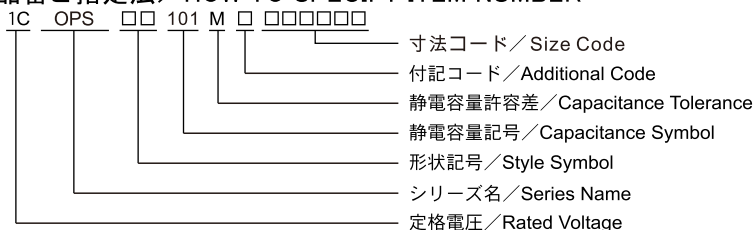
リップル周波数が標準品一覧表の規定値と異なる場合には、下表の係数を乗じた値以下でご使用下さい。

When the ripple frequency differs from the specification shown in the list of standard products, multiply the value with the coefficient shown below, and use the products under the obtained value.

周波数補正係数/FREQUENCY CORRECTION FACTOR

Cap.(μF)	Frequency (Hz)			
	120	1K	10K	100K
27~180	0.40	0.75	0.90	1.00
220~560	0.50	0.85	0.94	1.00
680~1800	0.60	0.87	0.95	1.00
2200~3900	0.75	0.90	0.95	1.00
4700~10000	0.85	0.95	0.98	1.00

■品番ご指定法/HOW TO SPECIFY ITEM NUMBER



■寸法表/CASE SIZE TABLE
■Impedance[Max.Value Ω] at 20°C 100kHz
■Ripple Current [Max. value mA] at 105°C 100kHz

WV (V)		2.5 (0E)					4 (0G)				
Parameter		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20 °C, 100KHz	Ripple current (mA rms) 105°C, 100KHz	Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz
270	271						6.3 × 9	0.08	216	8	4800
330	331	6.3 × 9	0.08	165	8	4800					
560	561						8 × 7 (8 × 9)	0.08 (0.08)	448 (448)	15 (7)	3900 (5200)
680	681	8 × 7	0.08	340	15	3900	8 × 12	0.08	544	7	5800
820	821	6.3 × 9 (8 × 9) (8 × 12)	0.08 (0.08) (0.08)	410 (410) (410)	8 (7) (7)	4800 (5200) (5800)					
1200	122						10 × 13	0.08	960	8	5500
1500	152	10 × 13	0.08	750	8	5500					

WV (V)		6.3 (0J)					10 (1A)				
Parameter		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20 °C, 100KHz	Ripple current (mA rms) 105°C, 100KHz	Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms) 105°C, 100KHz
150	151						6.3 × 10.5	0.08	300	20	3000
270	271						8 × 12	0.08	540	8	4900
330	331	6.3 × 10.5	0.08	416	20	3000					
390	391	8 × 7	0.08	491	15	3900					
470	471	8 × 12	0.08	592	7	5500	10 × 13	0.08	940	8	5500
560	561	6.3 × 9 (8 × 9)	0.08 (0.08)	706 (706)	9 (8)	4300 (5000)					
820	821	10 × 13	0.08	1033	8	5500					

WV (V)		16 (1C)				
Parameter		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (µA)	ESR (mΩ) max. 20 °C, 100KHz	Ripple current (mA rms) 105°C, 100KHz
100	101	6.3 × 10.5	0.08	320	24	2800
270	271	8 × 12	0.08	864	9	4500
330	331	10 × 13	0.08	1056	9	4700
470	471	10 × 13	0.08	1504	9	4700