

●超長壽命品

**OPX**シリーズ

JIS C 5101  
CE-04

●Ultra Long Life Assurance

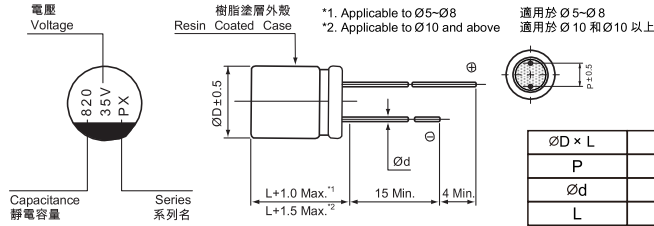
TYPE **OPX**

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■FEATURES

- Operating with wide temperature range -55~+105°C
- Ultra-low ESR, High Ripple Current
- Load life of 20000 hours
- RoHS & REACH compliant, Halogen-free

■寸法図/DIAGRAM OF DIMENSIONS



ØD × L	6.3×9	6.3×10.5	8×7	8×9	8×12	10×13
P	2.5	2.5	3.5	3.5	3.5	5.0
Ød	0.6	0.6	0.6	0.6	0.6	0.6
L	9.0	10.5	7.0	9.0	12.0	13.0

■性能/PERFORMANCE SPECIFICATIONS

カテゴリー温度範囲	CATEGORY TEMPERATURE RANGE	-55 ~ +105°C										
標準静電容量許容差	STANDARD CAPACITANCE TOLERANCE	±20% at 120kHz, 20°C										
漏れ電流 (最大値)	LEAKAGE CURRENT (MAX.VALUE)	≤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)	≤Specified value at 120kHz, 20°C.										
E.S.R	E.S.R.	≤Specified value at 100kHz, 20°C.										
低温特性	Stability at Low Temperature	Measurement frequency 測試頻率: 100kHz Impedance Ratio 阻抗比 $Z(+105°C)/Z(20°C) \leq 1.25$ $ZT/Z20$ (max) $Z(-55°C)/Z(20°C) \leq 1.25$										
耐久性	LOAD LIFE TEST	<table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±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> <p>After 20000 hours application of the rated voltage at 105°C, they meet the characteristics listed below.</p>	Capacitance Change	Within ±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 ±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											
	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"> <tr> <td>Frequency(Hz)</td> <td>120Hz ≤ f ≤ 1kHz</td> <td>1kHz ≤ f ≤ 10kHz</td> <td>10kHz ≤ f ≤ 100kHz</td> <td>100kHz ≤ f ≤ 300kHz</td> </tr> <tr> <td>Coefficient</td> <td>0.10</td> <td>0.40</td> <td>0.70</td> <td>1.00</td> </tr> </table>	Frequency(Hz)	120Hz ≤ f ≤ 1kHz	1kHz ≤ f ≤ 10kHz	10kHz ≤ f ≤ 100kHz	100kHz ≤ f ≤ 300kHz	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

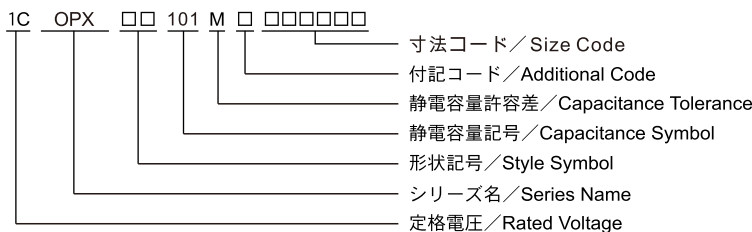
リップル周波数が標準品一覧表の規定値と異なる場合には、下表の係数を乗じた値以下でご使用下さい。

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  $\Omega$ ] at 20°C 100kHz**
**■ Ripple Current [Max. value mA] at 105°C 100kHz**

WV (V) Parameter Cap. (μF)		4 (0G)					6.3 (0J)				
		Case size ∅D' L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20 °C, 100KHz	Ripple current (mA rms) 105°C, 100KHz	Case size ∅D' 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 × 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
560	561	8 × 7 (8 × 9)	0.08 (0.08)	448 (448)	15 (7)	3900 (5200)	6 × 9 (8 × 9)	0.08 (0.08)	706 (706)	9 (8)	4300 (5000)
680	681	8 × 12	0.08	544	7	5500					
820	821						10 × 13	0.08	1033	8	5500
1200	122	10 × 13	0.08	960	8	5800					

WV (V) Parameter Cap. (μF)		10 (1A)					16 (1C)				
		Case size ∅D' L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20 °C, 100KHz	Ripple current (mA rms) 105°C, 100KHz	Case size ∅D' 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
150	151	6.3 × 10.5	0.08	300	20	3000					
270	271	8 × 12	0.08	540	8	4900	8 × 12	0.08	864	9	4500
330	331						10 × 13	0.08	1056	9	4700
470	471	10 × 13	0.08	940	8	5500	10 × 13	0.08	1504	9	4700