

●125°C高温，高可靠品
OPRシリーズ

JIS C 5101
CE-04

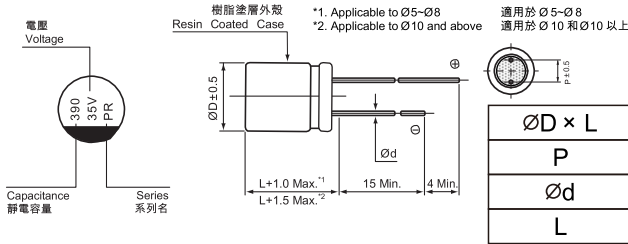
●125°C High Temperature, High Reliability
TYPE **OPR**

JIS C 5101
CE-04

■FEATURES

- Operating with wide temperature range -55~+125°C
- High reliability, low ESR, high ripple current
- Load life of 3000 hours
- RoHS & REACH compliant, Halogen-free

■寸法図/DIAGRAM OF DIMENSIONS



ØD × L	5×8	8×8	8×9	8×12	10×13
P	2.0	3.5	3.5	3.5	5.0
Ød	0.5	0.6	0.6	0.6	0.6
L	8.0	9.0	9.0	12.0	13.0

■性能/PERFORMANCE SPECIFICATIONS

カテゴリー温度範囲	CATEGORY TEMPERATURE RANGE	-55 ~ +125°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 <table border="1"> <tr> <td>Impedance Ratio 阻抗比 ZT/Z20 (max)</td> <td>Z(+125°C)/Z(20°C) ≤ 1.25</td> </tr> <tr> <td></td> <td>Z(-55°C)/Z(20°C) ≤ 1.25</td> </tr> </table>	Impedance Ratio 阻抗比 ZT/Z20 (max)	Z(+125°C)/Z(20°C) ≤ 1.25		Z(-55°C)/Z(20°C) ≤ 1.25						
Impedance Ratio 阻抗比 ZT/Z20 (max)	Z(+125°C)/Z(20°C) ≤ 1.25											
	Z(-55°C)/Z(20°C) ≤ 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 3000 hours application of the rated voltage at 125°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
Frequency(Hz)	120Hz ≤ f ≤ 1kHz	1kHz ≤ f ≤ 10kHz	10kHz ≤ f ≤ 100kHz	100kHz ≤ f ≤ 300kHz								
Coefficient	0.10	0.40	0.70	1.00								

■定格リップル電流補正係数

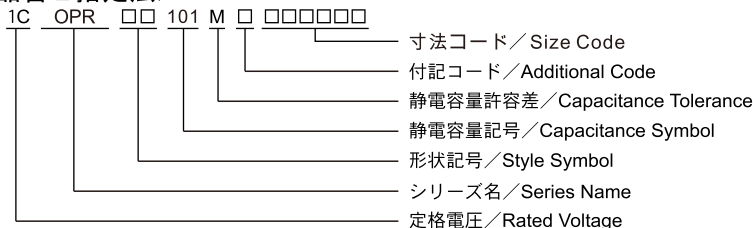
リップル周波数が標準品一覧表の規定値と異なる場合には、下表の係数を乗じた値以下でご使用下さい。

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) Parameter Cap. (μF)		6.3 (0J)						16 (1C)					
		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)	
						≤105°C (3)	105°C≤125°C (3)					≤105°C (3)	105°C≤125°C (3)
100	101	5 × 8	0.12	126	18	1900	730	5 × 8	0.12	320	13	2000	770
150	151							8 × 9	0.12	480	26	2100	810
220	221							8 × 12	0.12	704	25	2400	930
330	331	5 × 8	0.12	415	14	2300	880	8 × 8	0.12	1056	13	4700	1570
390	391							10 × 13	0.12	1248	23	2900	1130
1000	102							10 × 13	0.12	3200	12	4500	1730

WV (V) Parameter Cap. (μF)		20 (1D)						25 (1E)					
		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)	
						≤105°C (3)	105°C≤125°C (3)					≤105°C (3)	105°C≤125°C (3)
82	820							8 × 9	0.12	410	28	2000	780
120	121	8 × 9	0.12	480	27	2000	800	8 × 12	0.12	600	27	2300	890
150	151	8 × 12	0.12	600	26	2300	910						
180	181							10 × 13	0.12	900	25	2800	1080
270	271	10 × 13	0.12	1080	24	2800	1110						

WV (V) Parameter Cap. (μF)		35 (1V)						50 (1H)					
		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)		Case size ØD×L (mm)	Dissipation factor (tan δ)	Leakage current (μA)	ESR (mΩ) max. 20°C, 100KHz	Ripple current (mA rms)	
						≤105°C (3)	105°C≤125°C (3)					≤105°C (3)	105°C≤125°C (3)
22	220							8 × 9	0.12	220	35	1800	700
27	270							8 × 12	0.12	270	33	2000	810
39	390	8 × 9	0.12	273	33	1800	720						
47	470							10 × 13	0.12	470	29	2600	1020
56	560	8 × 12	0.12	392	31	2100	830						
100	101	10 × 13	0.12	700	28	2700	1040						