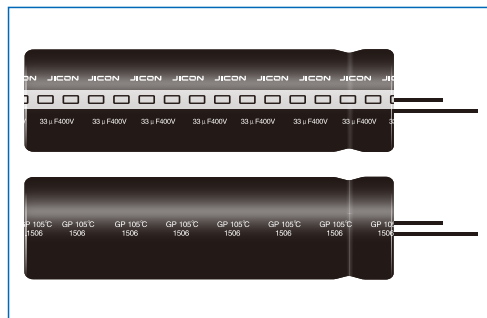


GP 系列 SERIES

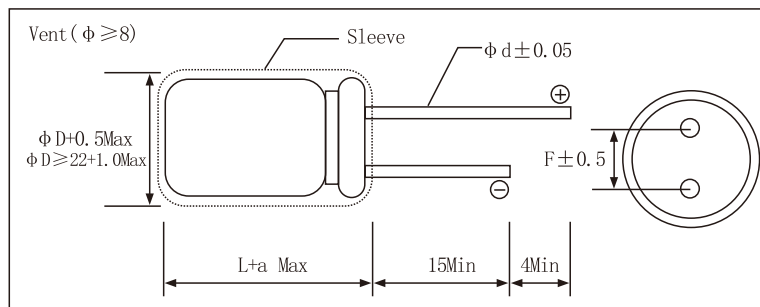
- 5000h at 105°C
- high-reliability and professional applications
- RoHS Compliant



◆ SPECIFICATION

Items	Characteristics												
Operating Temperature Range (°C)	-25~+105°C												
Voltage range (V)	200~450v												
Capacitance Range (µF)	27~220 µF												
Capacitance Tolerance	±20% (at 20°C, 120Hz)												
leakage current (µA)	After 5 minute at 20°C application of rated voltage , leakage current is not more than: $I \leq 0.02CV + 25 \mu A$ C:Nominal Capacitance (µF) V:Rated Voltage (V)												
Dissipation Factor (Tan δ)	<table border="1"> <thead> <tr> <th>WV (V)</th> <th>200</th> <th>250</th> <th>400</th> <th>420</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>Tan δ (max)</td> <td>0.15</td> <td>0.15</td> <td>0.2</td> <td>0.2</td> <td>0.2</td> </tr> </tbody> </table> (at 20°C, 120Hz)	WV (V)	200	250	400	420	450	Tan δ (max)	0.15	0.15	0.2	0.2	0.2
WV (V)	200	250	400	420	450								
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LowTemperature Characteristics	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>200~250</th> <th>400~450</th> </tr> </thead> <tbody> <tr> <td>Z-25°C/Z+20°C</td> <td>3</td> <td>8</td> </tr> </tbody> </table> (at 120Hz)	Rated Voltage (V)	200~250	400~450	Z-25°C/Z+20°C	3	8						
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Z-25°C/Z+20°C	3	8											
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DCvoltage with the rated rippled current is applied for 5000 hours at 105°C <table border="1"> <tbody> <tr> <td>Capacitance change</td> <td>Within ±20%initial value</td> </tr> <tr> <td>D. F. (Tan δ)</td> <td>Not more than 200% of specified value</td> </tr> <tr> <td>leakage current</td> <td>Not more than specified value</td> </tr> </tbody> </table>	Capacitance change	Within ±20%initial value	D. F. (Tan δ)	Not more than 200% of specified value	leakage current	Not more than specified value						
Capacitance change	Within ±20%initial value												
D. F. (Tan δ)	Not more than 200% of specified value												
leakage current	Not more than specified value												
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C afterexposing them for 1,000hours at 105°Cwithout voltage applied .Before the measurement ,the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. <table border="1"> <tbody> <tr> <td>Capacitance change</td> <td>Within± 20%initial value</td> </tr> <tr> <td>D. F. (Tan δ)</td> <td>Not more than 200% of specified value</td> </tr> <tr> <td>leakage current</td> <td>Not more than 200% of specified value</td> </tr> </tbody> </table>	Capacitance change	Within± 20%initial value	D. F. (Tan δ)	Not more than 200% of specified value	leakage current	Not more than 200% of specified value						
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D. F. (Tan δ)	Not more than 200% of specified value												
leakage current	Not more than 200% of specified value												

◆ DIMENSIONS(mm)



ΦD	10	13	16~18
F	5	5	7.5
Φd	0.6	0.6	0.8
a	2	2	2

◆ Frequency Coefficient

Frequency	50Hz	120Hz	1kHz	10kHz	100kHz	
	60Hz					
Coefficient	200~250V	0.8	1.0	1.20	1.30	1.40
	400~450V	0.8	1.0	1.25	1.40	1.50

◆ Temperature Coefficient

Temperature (°C)	+70	+85	+105
Coefficient	1.80	1.40	1.00



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max Impedance 20°C 120Hz	Rated Ripple Current 105°C 120Hz	Size φD×L
(V)	(μF)	(Ω)	(mA rms)	(mm)
200 (250) 2D	82	2.42	420	10×36
	100	1.99	480	10×40
	120	1.66	540	10×45
	150	1.33	650	13×36
	180	1.10	730	13×42
	220	0.90	840	13×45
	270	0.74	910	16×40
	330	0.60	1050	18×36
	390	0.51	1180	18×40
	470	0.42	1300	18×45
250 (300) 2E	560	0.36	1450	18×50
	68	2.93	340	10×36
	82	2.43	440	10×43
	100	1.99	500	10×51
	120	1.66	580	13×40
	150	1.33	680	13×45
400 (450) 2G	180	1.11	760	16×40
	220	0.91	880	18×40
	33	8.04	290	10×40
	47	5.65	390	10×51
	56	4.74	440	13×40
	68	3.90	500	13×45
	100	2.65	610	16×40
	120	2.21	680	18×36
420 (470) W6	150	1.77	810	18×40
	180	1.47	920	18×45
	220	1.21	960	18×50
	39	6.80	320	10×45
	47	5.65	370	10×51
	56	4.74	450	13×40
450 (500) 2W	68	3.90	520	13×45
	100	2.65	640	18×32
	120	2.21	700	18×36
	150	1.77	840	18×45
	33	8.04	290	10×45
	39	6.80	330	10×51
	47	5.65	330	13×36
	53	5.00	400	13×40
	56	4.74	430	13×45
	68	3.90	460	13×45
450 (500) 2W	68	3.90	540	13×51
	68	3.90	540	16×36
	82	3.24	540	16×45
	82	3.24	600	16×45
	100	2.65	600	18×32

Customer products are available on request