

# GK 105° C, (CD263F)

- ⊙ Load life of 2000~5000 hours at 105° C.
- ⊙ Enabled high ripple current by a reduction of impedance at high frequency range.
- ⊙ Lowest impedance for personal computer and storage equipment.
- ⊙ Adapted to the ROHS directive (2002/95/EC).



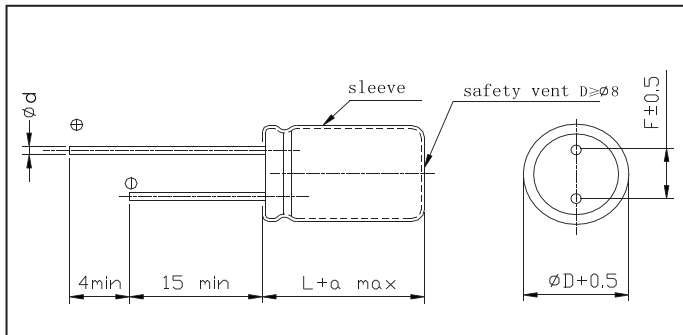
LOW Z

## Specifications

Item	Performance Characteristics										
Operating temperature range	-40 ~ +105 °C										
Rated voltage range	6.3 ~ 25V										
Nominal capacitance range	100 ~ 6800µF										
Capacitance tolerance	± 20% (120Hz, +20°C)										
Leakage current	$I \leq 0.01CV$ (µA) 3µA (at 20°C, after 2 minutes, Whichever is greater)										
(tg δ) Dissipation factor (+20° C, 120Hz)	<table border="1"> <tr> <td><math>U_R</math>(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> </tr> <tr> <td>tg δ</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> </tr> </table>	$U_R$ (V)	6.3	10	16	25	tg δ	0.22	0.19	0.16	0.14
	$U_R$ (V)	6.3	10	16	25						
tg δ	0.22	0.19	0.16	0.14							
For capacitance value >1000µF, add 0.02 per another 1000µF											
Temperature Characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td><math>U_R</math>(V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> </tr> <tr> <td><math>Z_{-25^\circ C} / Z_{+20^\circ C}</math></td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> </table>	$U_R$ (V)	6.3	10	16	25	$Z_{-25^\circ C} / Z_{+20^\circ C}$	2	2	2	2
	$U_R$ (V)	6.3	10	16	25						
$Z_{-25^\circ C} / Z_{+20^\circ C}$	2	2	2	2							
Load life	Duration: ≤ <table border="1"> <tr> <td><math>\phi D</math></td> <td>6.3</td> <td>8</td> <td>10</td> <td>12.5~</td> </tr> <tr> <td>Load life</td> <td>2000h</td> <td>3000h</td> <td>4000h</td> <td>5000h</td> </tr> </table>	$\phi D$	6.3	8	10	12.5~	Load life	2000h	3000h	4000h	5000h
	$\phi D$	6.3	8	10	12.5~						
Load life	2000h	3000h	4000h	5000h							
After applying rated voltage at +105°C and then resumed 16 hours: Capacitance change: ±25% Initial measured value Leakage current: ≤ Initial specified value Dissipation factor: ≤ 2 times Initial specified value											
Shelf life	After storage for 1000 hours at +105°C and then resumed 16 hours Capacitance change : ±25% Initial measured value Leakage current: ≤ 2 times Initial specified value Dissipation factor: ≤ 2 times Initial specified value										
	After storage for 1000 hours at +105°C and then resumed 16 hours Capacitance change : ±25% Initial measured value Leakage current: ≤ 2 times Initial specified value Dissipation factor: ≤ 2 times Initial specified value										

## Case size table

Unit: mm



D	5	6.3	8	10	13	16
F	2.0	2.5	3.5	5.0	5.0	7.5
d	0.5		0.5、0.6	0.6		0.8

αMAX	(L < 20)	1.5
	(L ≥ 20)	2.0

### Frequency coefficient

Cap.(µF)	(Hz)	120	1K	10K	100K
100~180		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~		0.85	0.95	0.98	1.00

## RIPPLE CURRENT MULTIPLIER

## ■ Dimensions

Voltage(Code)		6.3V(0J)			10V(1A)			16V(1C)		
Cap.( $\mu$ F)	Code	case size	Impedance	Ripple Current	case size	Impedance	Ripple Current	case size	Impedance	Ripple Current
120	121							6.3x11	0.130	405
150	151									
180	181									
220	221	6.3x11	0.130	405	6.3x11	0.130	405	8x12	0.072	760
330	331	6.3x11	0.130	405	8x12	0.072	760	8x12	0.072	760
470	471	8x12	0.072	760	8x12	0.072	760	8x16	0.056	995
								10x12.5	0.053	1030
560	561	8x12	0.072	760						
680	681				8x16	0.056	995	8x20	0.041	1250
					10x12.5	0.053	1030	10x16	0.038	1430
820	821	8x16	0.056	995						
1000	102	10x12.5	0.053	1030	8x20	0.041	1250	10x20	0.023	1820
					10x16	0.038	1430			
1200	122	8x20	0.041	1250	10x20	0.023	1820	10x25	0.022	2150
		10x16	0.038	1430						
1500	152	10x20	0.023	1820	10x25	0.022	2150	12.5x20	0.021	2360
2200	222	10x25	0.022	2150	12.5x20	0.021	2360	12.5x25	0.018	2770
2700	272							12.5x30	0.016	3290
								16x20	0.018	3140
3300	332	12.5x20	0.021	2360	12.5x25	0.018	2770	12.5x35	0.015	3400
3900	392	12.5x25	0.018	2770	12.5x30	0.016	3290	16x25	0.016	3460
					16x20	0.018	3140			
4700	472	12.5x30	0.016	3290	12.5x35	0.015	3400			
5600	562	12.5x35	0.015	3400	16x25	0.016	3460			
		16x20	0.018	3140						
6800	682	16x25	0.016	3460						

## ■ Dimensions

Voltage(Code)		25V(1E)		
Cap.( $\mu$ F)	Code	case size	Impedance	Ripple Current
100	101	6.3x11	0.130	405
220	121	8x12	0.072	760
330	331	8x16	0.056	995
		10x12.5	0.053	1030
470	471	8x20	0.041	1250
		10x16	0.038	1430
680	681	10x20	0.023	1820
820	821	10x25	0.022	2150
1000	102	12.5x20	0.021	2360
1500	152	12.5x25	0.018	2770
1800	182	12.5x30	0.016	3290
		16x20	0.018	3140
2200	222	12.5x35	0.015	3400
2700	272	16x25	0.016	3460

Maximum Allowable Ripple Current (mA rms)at 105°C 100KHz  
Maximum Impedance( $\Omega$ ) at 20°C 100KHz

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Maximum Impedance( $\Omega$ ) at 20°C 100KHz