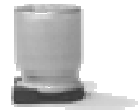


GPJ Series, 125°C Standard

- Low ESR & high ripple current capability
- Endurance: 1,000 hours at 125°C
- Compliant to the RoHS directive

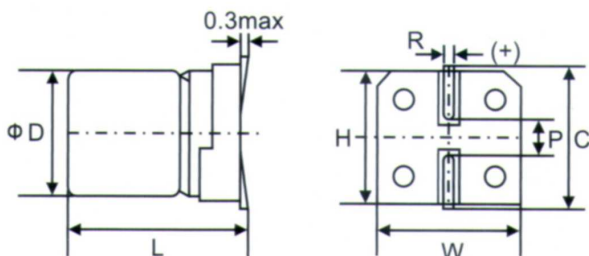


• Specifications

Item	Performance Characteristics	
Operating Temperature range	-55 + 125°C	
Rated Voltage Range	2.5V ~ 16V	
Capacitance Tolerance	± 20% (at 120 Hz / 20°C)	
Surge Voltage	Rated Voltage x 1.15	
Leakage Current	Within the specified value as in standard rating	
Dissipation Factor (tan δ)	Less than or equal to the specified value at 20°C, 120 Hz	
Temperature Characteristics (Impedance ratio at 100 KHz)	Z (-25°C) / Z (+20°C)	≤ 1.15
	Z (-55°C) / Z (+20°C)	≤ 1.25
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 1,000 hours, at 125°C.	
	Capacitance change	≤ ± 20% of the initial value
	D. F. (Tan δ)	≤ 150% of initial specified value
	ESR	≤ 150% of initial specified value
	Leakage current	Initial specified value or less
Bias Humidity Test	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them at 60°C, 90 to 95% RH for 1,000 hours.	
	Capacitance change	≤ ± 20% of the initial value
	D. F. (Tan δ)	≤ 150% of initial specified value
	ESR	≤ 150% of initial specified value
	Leakage current	Initial specified value or less
Surge Voltage Test	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltage specified at 125°C for 30 seconds through a protective resistor (R=1KΩ) and discharge for 5 minutes 30 seconds.	
	Capacitance change	≤ ± 20% of the initial value
	D. F. (Tan δ)	≤ 150% of initial specified value
	ESR	≤ 150% of initial specified value
	Leakage current	Initial specified value or less
Failure Rate	0.5% per 1,000 hours maximum (Confidence level 60% at 125°C)	

* In case of any doubt arises, measure the leakage current after voltage applied for 120 minutes at 125°C.

• Dimension



D ϕ ±0.5	L ±0.3	W ±0.2	H ±0.2	C ±0.2	R	P ±0.2
6.3	5.7	6.6	6.6	7.3	0.5-0.8	2.1
8	6.9	8.3	8.3	9	0.6-0.8	3.2
10	12.6	10.3	10.3	11	0.8-1.1	4.6

• Standard Products Table

Rated voltage (V.DC)	Rated Capacitance (μF)	Case Size D x L (mm)	tan δ	Leakage Current (μA)	ESR mΩ max./ 20°C 100KHz to 300KHz	Rated ripple current (mA _{rms} /105°C, 100 KHz)	Part Number
2.5V	220	6.3x5.7	0.10	110	23	2,390	GPJ220M2.5-0605TR
	470	8x6.9	0.10	235	23	3,300	GPJ470M2.5-0806TR
	1500	10x12.6	0.10	750	12	5,440	GPJ152M2.5-1012TR
6.3V	100	6.3x5.7	0.10	126	40	1,810	GPJ100M6.3-0605TR
	120	8x6.9	0.10	151	50	2,560	GPJ120M6.3-0806TR
	820	10x12.6	0.10	1,033	12	5,440	GPJ820M6.3-1012TR
16V	27	6.3x5.7	0.10	86	50	1,620	GPJ027M016-0605TR
	56	8x6.9	0.10	179	45	1,890	GPJ056M016-0806TR
	330	10x12.6	0.10	1,056	16	4,720	GPJ330M016-1012TR

• Frequency coefficient of allowable ripple current

Frequency	120 Hz ≤ f < 1 KHz	1 KHz ≤ f < 10 KHz	10 KHz ≤ f < 100 KHz	100 KHz ≤ f ≤ 300 KHz
Coefficient	0.05	0.30	0.70	1.00