

G/PS series achieved high capacitance in 1.0mm height by using the substrate terminal structure.
Higher volume efficiency than F/PS series by using substrate terminal.
Best solution for smaller and thinner applications.



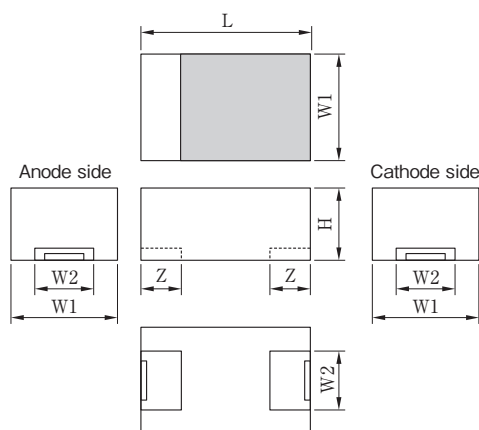
Performance Characteristics

Item		Performance			Test condition (IEC 60384-1)
Operating temperature		- 55°C ~ +105°C			—
Rated temperature		+105°C			—
Rated voltage (V)		6.3	10		Temp. : 105°C
Surge voltage (V)		8	13		Temp. : 85°C
Nominal Capacitance	Range	10 μ F ~ 47 μ F			Measurement freq. : 120Hz Measurement volt : 0.5Vrms+1.5V DC
	Tolerance	$\pm$ 20%			Measurement freq. : 120Hz Measurement volt : 0.5Vrms+1.5V DC
Dissipation Factor (tan δ)		Refer to Standard Ratings			Measurement freq. : 120Hz Measurement volt : 0.5Vrms+1.5V DC
Leakage Current (LC)		Refer to Standard Ratings			Rated voltage after 5 minuets
Equivalent Series Resistance (ESR)		Refer to Standard Ratings			Measurement freq. : 100kHz
Permissible Ripple Current		Refer to Standard Ratings			Measurement freq. : 100kHz, sine wave
		Δ C/C	$\tan \delta$	LC	
Surge voltage test		+20% ~ - 20% of the initial value	Within IL	Within IL	Temp. : 85°C, Surge voltage apply, 1000ohm series resistance, 1000cycles
Characteristics at high and low temperature	+ 25°C	—	Within IL	Within IL	—
	- 55°C	0% ~ - 20% compare with +25°C	Within IL	—	—
	+ 105°C	+50% ~ 0% compare with +25°C	Within 1.5 $\times$ IL	Within 10 $\times$ IL	—
Endurance		+20% ~ - 20% of the initial value	Within 1.5 $\times$ IL	Within IL	Temp. : 105°C, Rated voltage apply, 1000hours
Damp heat		+30% ~ - 20% of the initial value	Within 1.5 $\times$ IL	Within IL	Temp. : 60°C, Humidity: 90 ~ 95%RH, 500hours

IL = Initial limit

Unless otherwise specified, the measurement of electrical property is performed under the room temperature (25°C)

Dimensions



(Unit : mm)

Dimension code	L	W1	W2	H	Z
Case code P2	2.0 $\pm$ 0.1	1.25 $\pm$ 0.1	0.9 $\pm$ 0.1	0.9 $\pm$ 0.1	0.55 $\pm$ 0.1



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- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

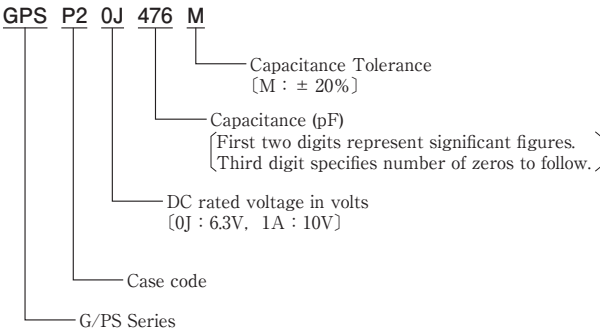
Standard C-V Value Reference by Case Code

Rated voltage Capacitance	6.3	10
	0J	1A
10 μ F	P2 200	P2 200
22 μ F		P2 200
33 μ F		
47 μ F	P2 150	

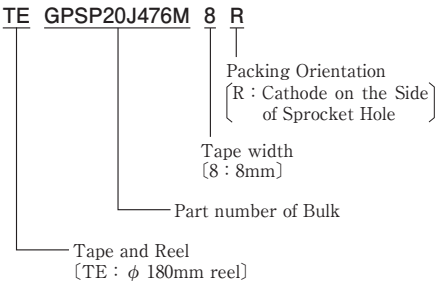
※ Number : ESR initial spec. (mΩ)

Part Number System

[Bulk]



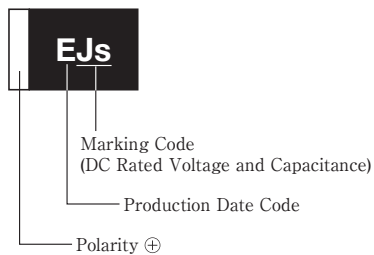
[Tape and reel]



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■ Marking

【P2 case】 (e.g. 6.3V/47μF)



《DC rated voltage and capacitance》

Rated voltage Capacitance	6.3V	10V
	J	A
10 μ F	Ja	Aa
22 μ F		Aj
33 μ F		
47 μ F	Js	

《Production date code》

Y \ M	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	W	X	Y	Z
2019	a	b	c	d	e	f	g	h	j	k	l	m
2020	n	p	q	r	s	t	u	v	w	x	y	z

NOTE: Production date code will resume beginning in 2021.

■ Standard Ratings

Rated Voltage (V)	Capacitance (μ F)	Case Code	Part Number (Bulk)	Leakage Current (μ A, +25°C) Maximum	tan δ (+25°C, 120Hz) Maximum	ESR (mΩ, +25°C, 100kHz) Maximum	Permissible Ripple Current (mA, +25°C, 100kHz) Maximum
6.3	10	P2 / 2012-09	GPSP20J106M	18.9	0.06	200	354
	47	P2 / 2012-09	GPSP20J476M	88.8	0.06	150	408
10	10	P2 / 2012-09	GPSP21A106M	30	0.06	200	354
	22	P2 / 2012-09	GPSP21A226M	66	0.06	200	354



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