



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## Surface Mount Type **SP-Cap**

Series : **GX (Super Low ESR Products)**



### Features

- Large capacitance (560  $\mu$ F max.)
- Super Low ESR (3 m $\Omega$  max.)
- Low ESL ( 3-terminals : 50 % less than 2-terminals) [Suffix : L]
- High ripple current (10200 mAr.m.s. max.)
- RoHS compliance, Halogen free

### Specifications

Series	GX	
Category temp. range	-55 °C to +105 °C	
Rated voltage range	2 V.DC to 2.5 V.DC	
Nominal cap.range	330 $\mu$ F to 560 $\mu$ F	
Capacitance tolerance	$\pm$ 20 % (120 Hz/+20 °C)	
DC leakage current	$I \leq 0.1 CV$ ( $\mu$ A) 2 minutes	
Dissipation factor (tan $\delta$ )	$\leq 0.06$ (120 Hz/+20 °C)	
Surge voltage (V.DC)	Rated voltage $\times$ 1.25 (15 °C to 35 °C)	
Endurance	+105 °C, 2000 h, rated voltage applied	
	Capacitance change	Within $\pm$ 20 % of the initial value
	tan $\delta$	$\leq 2$ times of the initial limit
	DC leakage current	$\leq 3$ times of the initial limit
Damp heat (Steady state)	+60 °C, 90 %, 500 h, No-applied voltage	
	Capacitance change of initial measurd value	2 V.DC to 2.5 V.DC +70 %, -20 %
	tan $\delta$	$\leq 2$ times of the initial limit
	DC leakage current	Within the initial limit

### Marking

Rated voltage mark	
d	2 V.DC
e	2.5 V.DC

### Dimensions (not to scale)

2 terminals

Unit : mm

Series	L $\pm$ 0.2	W1 $\pm$ 0.2	W2 $\pm$ 0.1	H $\pm$ 0.1	P $\pm$ 0.3
GX	7.3	4.3	2.4	1.9	1.3

\* Externals of figure are the reference.

3 terminals

Unit : mm

Series	L $\pm$ 0.2	W1 $\pm$ 0.2	W2 $\pm$ 0.1	H $\pm$ 0.1	P1 $\pm$ 0.3	P2 $\pm$ 0.1	P3 $\pm$ 0.2	P4 $\pm$ 0.2
GX	7.3	4.3	2.4	1.9	1.3	1.1	0.7	1.4

\* Externals of figure are the reference.

## Characteristics list

											Reflow *3	<Standard>
Series	Rated voltage (V.DC)	Capacitance (±20%) (μF)	Case size (mm)			Specification		The number of terminals		Part number	Min.*4 Packaging Q'ty (pcs)	
			L	W	H	*1 Ripple current (mA r.m.s.)	*2 ESR (mΩ max.)	2	3			
GX	2	330	7.3	4.3	1.9	10200	3	○		EEFGX0D331R	3500	
		470	7.3	4.3	1.9	10200	3	○		EEFGX0D471R	3500	
			7.3	4.3	1.9	10200	3		○	EEFGX0D471L	3500	
		560	7.3	4.3	1.9	10200	3	○		EEFGX0D561R	3500	
	7.3		4.3	1.9	10200	3		○	EEFGX0D561L	3500		
	2.5	470	7.3	4.3	1.9	10200	3	○		EEFGX0E471R	3500	
			7.3	4.3	1.9	10200	3		○	EEFGX0E471L	3500	

\*1: Ripple current (100 kHz/ +45°C), \*2: ESR (100 kHz/+20 °C)

\*3: Please refer to the page of "Mounting Specifications".

\*4: Please contact us when 500 pcs packing is necessary.

## Temperature compensation multipliers for ripple current

Temp.	$T \leq 45\text{ °C}$	$45\text{ °C} < T \leq 85\text{ °C}$	$85\text{ °C} < T \leq 105\text{ °C}$
Coefficient	1.0	0.7	0.25