GQB Series

- Endurance with ripple current : 1,000 hours at 150℃
- For automobile transmission, electric water pump and other high temperature applications.
- Rated voltage range : 25 & 35V, Nominal capacitance range : 560 to 3,600µF
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

GPD → Higher temperature, Higher ripple current → GQB

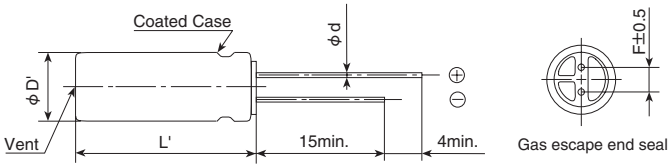


◆SPECIFICATIONS

Items	Characteristics			
Category Temperature Range	-40 to +150℃			
Rated Voltage Range	25, 35Vdc			
Capacitance Tolerance	±20% (M)			(at 20℃, 120Hz)
Leakage Current	I=0.03CV or 4µA, whichever is greater. Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V)			(at 20℃, 1 minute)
Dissipation Factor (tan δ)	Rated voltage (Vdc)	25V	35V	
	tan δ (Max.)	0.14	0.12	
	When nominal capacitance exceeds 1,000µF, add 0.02 to the value above for each 1,000µF increase.			(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)	25V	35V	
	Z(-25℃)/Z(+20℃)	2	2	
	Z(-40℃)/Z(+20℃)	4	4	(at 120Hz)
Endurance 1	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 1,000 hours at 150℃.			
	Capacitance change	≦±30% of the initial value		
	D.F. (tan δ)	≦300% of the initial specified value		
	Leakage current	≦The initial specified value		
Endurance 2	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 2,000 hours at 125℃.			
	Capacitance change	≦±30% of the initial value		
	D.F. (tan δ)	≦300% of the initial specified value		
	Leakage current	≦The initial specified value		
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 500 hours at 150℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.			
	Capacitance change	≦±30% of the initial value		
	D.F. (tan δ)	≦300% of the initial specified value		
	Leakage current	≦The initial specified value		

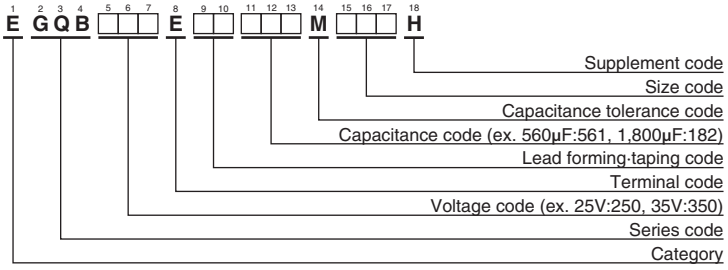
◆DIMENSIONS [mm]

●Terminal Code : E



φD	12.5	16	18
φd	0.6	0.8	0.8
F	5.0	7.5	7.5
φD'	φD±0.5		
L'	$L^{+1.5}_{-1.0}$		

◆PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"

Product specifications in this catalog are subject to change without notice.Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications.

GQB Series

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	ESR (Ω max./100kHz)		Rated ripple current (mArms/100kHz)		Part No.
				20℃	-40℃	150℃	125℃	
25	1,100	12.5 × 20	0.14	0.12	1.4	1,100	2,620	EGQB250E□□112MK20H
	1,600	12.5 × 25	0.14	0.080	1.0	1,300	2,910	EGQB250E□□162MK25H
	1,800	16 × 20	0.14	0.070	1.0	1,460	3,590	EGQB250E□□182ML20H
	2,400	18 × 20	0.16	0.058	0.90	1,560	3,830	EGQB250E□□242MM20H
	2,700	16 × 25	0.16	0.050	0.80	1,720	4,560	EGQB250E□□272ML25H
	3,600	18 × 25	0.18	0.042	0.70	1,800	4,800	EGQB250E□□362MM25H
35	560	12.5 × 20	0.12	0.15	4.5	1,000	2,230	EGQB350E□□561MK20H
	750	12.5 × 25	0.12	0.12	3.4	1,200	2,680	EGQB350E□□751MK25H
	910	16 × 20	0.12	0.10	3.0	1,260	3,110	EGQB350E□□911ML20H
	1,200	18 × 20	0.12	0.084	2.0	1,320	3,250	EGQB350E□□122MM20H
	1,400	16 × 25	0.12	0.067	2.0	1,600	4,060	EGQB350E□□142ML25H
	1,800	18 × 25	0.12	0.058	1.4	1,680	4,500	EGQB350E□□182MM25H

□□ : Enter the appropriate lead forming or taping code.

◆RATED RIPPLE CURRENT MULTIPLIERS

❶Frequency Multipliers

Capacitance(μF) \ Frequency(Hz)	120	1k	10k	100k
560	0.50	0.85	0.94	1.00
750 to 1,800	0.60	0.87	0.95	1.00
2,400 to 3,600	0.75	0.90	0.95	1.00

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.

Please contact us for lifetime estimation.

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■ Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.

■ Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.

■ The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.

■ The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.

■ We strongly recommend our customers to purchase Nippon Chemi-Con products only through our official sales channels. We assume no responsibility for any defects or damages caused by using products purchased from outside our official sales channel or of counterfeit goods. In addition, we will ask the customer to pay the investigation cost for products purchased outside our official sales channel.

■ We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.
The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products

■ We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.
In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

Part Numbering System
Part Numbering System (Appendix)
Standardization
Available Items by Manufacturing Locations
Environmental Measures
Technical Note
Precautions and Guidelines
Recommended Soldering Conditions
Taping, Lead-preforming and Packaging
Available Terminals for Snap-in and Screw Mount Type

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