

GXL Series

- Long-Life version of GXE series
- For automobile modules and other high temperature applications
- Endurance with ripple current : 125°C 5000 to 10000 hours

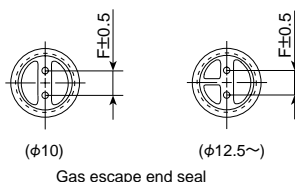
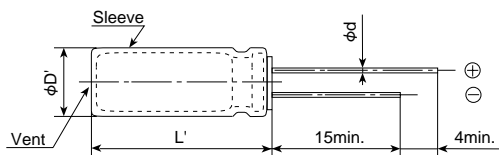
Feature!
High Reliability
(125°C 5000/10000H.)



◆ SPECIFICATIONS

Items	Characteristics					
Category	-40 to +125°C					
Temperature Range	-40 to +125°C					
Rated Voltage Range	10 to 50V _{dc}					
Capacitance Tolerance	±20% (M) (at 20°C, 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°C, 1 minute)					
Dissipation Factor (tanδ)	Rated voltage (V _{dc})	10V	16V	25V	35V	50V
	tanδ (Max.)	0.20	0.16	0.14	0.12	0.10
When nominal capacitance exceed 1000μF, 0.02 shall be added each 1000μF increase. (at 20°C, 120Hz)						
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	10V	16V	25V	35V	50V
	Z(-25°C)/Z(+20°C)	3	2	2	2	2
	Z(-40°C)/Z(+20°C)	6	4	4	4	4
(at 120Hz)						
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 10000 hours (5000 hours for φ10) at 125°C.					
	Capacitance change	≤±30% of the initial value				
	D.F. (tanδ)	≤±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°C after exposing them for 1000 hours at 125°C without voltage applied.					
	Capacitance change	≤±30% of the initial value				
	D.F. (tanδ)	≤±300% of the initial specified value				
	Leakage current	≤The initial specified value				

◆ DIMENSIONS (Radial Lead Type=VB) [mm]



φD	10	12.5	16
φd	0.6	0.6	0.8
F	5.0	5.0	7.5
φD'	φD+0.5max.		
L'	L+1.5max.		

◆ PART NUMBERING SYSTEM

GXL 10 VB 3300 M

Cap tolerance (±20%)
Nominal cap code
Radial lead type
Rated voltage in volts
Series name

Capacitance	Code
100μF	100
470μF	470
1000μF	1000

◆ RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Capacitance(μF)	Frequency(Hz)	120	1k	10k	100k
100		0.40	0.75	0.90	1.00
220~470		0.50	0.85	0.94	1.00
1000		0.60	0.87	0.95	1.00
2200~3300		0.75	0.90	0.95	1.00
4700		0.85	0.95	0.98	1.00

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◆STANDARD RATINGS

V _{dc} Items Capacitance (μF)	10			16		
	Case size φD×L (mm)	Impedance (Ω _{max.} / 20°C, 100kHz)	Rated ripple current (mA _{rms} / 125°C, 100kHz)	Case size φD×L (mm)	Impedance (Ω _{max.} / 20°C, 100kHz)	Rated ripple current (mA _{rms} / 125°C, 100kHz)
220	—	—	—	10×12.5	0.20	620
330	10×12.5	0.20	620	10×12.5	0.20	620
470	10×12.5	0.20	620	10×16	0.14	790
1,000	10×20	0.12	950	12.5×20	0.073	1,080
2,200	12.5×25	0.057	1,350	16×25	0.040	1,620
3,300	16×25	0.040	1,620	16×31.5	0.031	1,860
4,700	16×31.5	0.031	1,860	—	—	—

V _{dc} Items Capacitance (μF)	25			35		
	Case size φD×L (mm)	Impedance (Ω _{max.} / 20°C, 100kHz)	Rated ripple current (mA _{rms} / 125°C, 100kHz)	Case size φD×L (mm)	Impedance (Ω _{max.} / 20°C, 100kHz)	Rated ripple current (mA _{rms} / 125°C, 100kHz)
100	—	—	—	10×12.5	0.20	620
220	10×12.5	0.20	620	10×16	0.14	790
330	10×16	0.14	790	10×20	0.12	950
470	10×20	0.12	950	12.5×20	0.073	1,080
1,000	12.5×25	0.057	1,350	16×25	0.040	1,620
2,200	16×31.5	0.031	1,860	—	—	—

V _{dc} Items Capacitance (μF)	50		
	Case size φD×L (mm)	Impedance (Ω _{max.} / 20°C, 100kHz)	Rated ripple current (mA _{rms} / 125°C, 100kHz)
100	10×12.5	0.37	520
220	10×20	0.21	880
330	12.5×20	0.13	990
470	12.5×25	0.095	1,150
1,000	16×31.5	0.049	1,590

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