

GXL Series

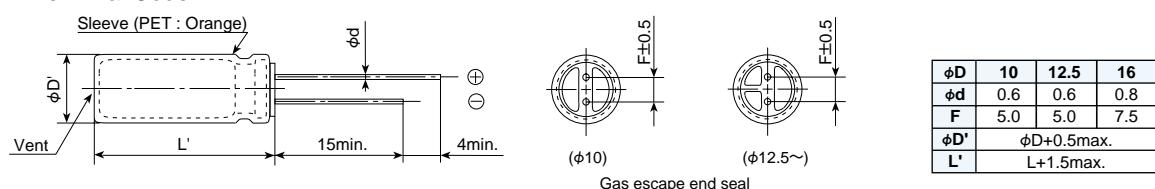
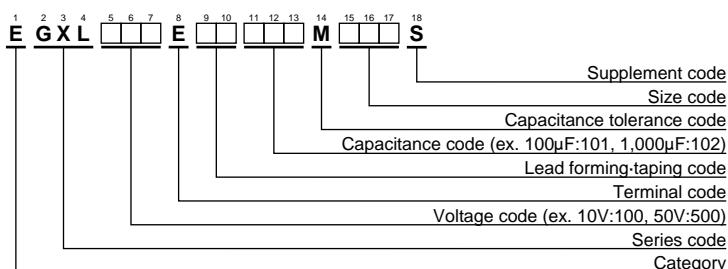
- Long-Life version of GXE series
- For automobile modules and other high temperature applications
- Endurance with ripple current : 5,000 to 10,000 hours at 125°C
- Solvent-proof type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

**◆SPECIFICATIONS**

Items	Characteristics				
Category Temperature Range	-40 to +125°C				
Rated Voltage Range	10 to 50Vdc				
Capacitance Tolerance	$\pm 20\%$ (M) (at 20°C, 120Hz)				
Leakage Current	$I=0.03CV$ or $4\mu A$, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C, 1 minute)				
Dissipation Factor ($\tan\delta$)	Rated voltage (V _{dc})	10V	16V	25V	35V 50V
	$\tan\delta$ (Max.)	0.20	0.16	0.14	0.12 0.10
	When nominal capacitance exceeds 1,000 μF , add 0.02 to the above value for each 1,000 μF increase. (at 20°C, 120Hz)				
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	10V	16V	25V	35V 50V
	$Z(-25^\circ C)/Z(+20^\circ C)$	3	2	2	2
	$Z(-40^\circ C)/Z(+20^\circ C)$	6	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 10,000 hours (5,000 hours for $\phi 10$) at 125°C.				
	Capacitance change	$\leq \pm 30\%$ of the initial value			
	D.F. ($\tan\delta$)	$\leq 300\%$ of the initial specified value			
	Leakage current	\leq The initial specified value			
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 125°C without voltage applied.				
	Capacitance change	$\leq \pm 30\%$ of the initial value			
	D.F. ($\tan\delta$)	$\leq 300\%$ of the initial specified value			
	Leakage current	\leq The initial specified value			

◆DIMENSIONS [mm]

- Terminal Code : E

**◆PART NUMBERING SYSTEM**

Please refer to "A guide to global code (radial lead type)"

GXL Series

◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φDXL(mm)	Impedance (Ωmax/20°C, 100kHz)	Rated ripple current (mAmps/125°C, 100kHz)	Part No.
10	330	10 × 12.5	0.17	800	EGXL100E□□331MJC5S
	470	10 × 12.5	0.17	800	EGXL100E□□471MJC5S
	1,000	10 × 20	0.094	1,300	EGXL100E□□102MJ20S
	2,200	12.5 × 25	0.055	2,050	EGXL100E□□222MK25S
	3,300	16 × 25	0.035	2,500	EGXL100E□□332ML25S
	4,700	16 × 31.5	0.027	3,000	EGXL100E□□472MLN3S
16	220	10 × 12.5	0.17	800	EGXL160E□□221MJC5S
	330	10 × 12.5	0.17	800	EGXL160E□□331MJC5S
	470	10 × 16	0.12	1,050	EGXL160E□□471MJ16S
	1,000	12.5 × 20	0.067	1,650	EGXL160E□□102MK20S
	2,200	16 × 25	0.035	2,500	EGXL160E□□222ML25S
	3,300	16 × 31.5	0.027	3,000	EGXL160E□□332MLN3S
25	220	10 × 12.5	0.17	800	EGXL250E□□221MJC5S
	330	10 × 16	0.12	1,050	EGXL250E□□331MJ16S
	470	10 × 20	0.094	1,300	EGXL250E□□471MJ20S
	1,000	12.5 × 25	0.055	2,050	EGXL250E□□102MK25S
	2,200	16 × 31.5	0.027	3,000	EGXL250E□□222MLN3S
	100	10 × 12.5	0.17	800	EGXL350E□□101MJC5S
35	220	10 × 16	0.12	1,050	EGXL350E□□221MJ16S
	330	10 × 20	0.094	1,300	EGXL350E□□331MJ20S
	470	12.5 × 20	0.067	1,650	EGXL350E□□471MK20S
	1,000	16 × 25	0.035	2,500	EGXL350E□□102ML25S
	100	10 × 12.5	0.30	590	EGXL500E□□101MJC5S
50	220	10 × 20	0.19	970	EGXL500E□□221MJ20S
	330	12.5 × 20	0.11	1,380	EGXL500E□□331MK20S
	470	12.5 × 25	0.085	1,700	EGXL500E□□471MK25S
	1,000	16 × 31.5	0.043	2,490	EGXL500E□□102MLN3S

□□ : Fill with appropriate lead forming or taping code.

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Capacitance(μF) \ Frequency(Hz)	120	1k	10k	100k
100	0.40	0.75	0.90	1.00
220 to 470	0.50	0.85	0.94	1.00
1,000	0.60	0.87	0.95	1.00
2,200 to 3,300	0.75	0.90	0.95	1.00
4,700	0.85	0.95	0.98	1.00

The endurance of capacitors is shorted with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.