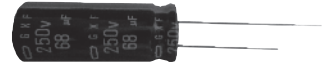


# GXF Series

- Downsizing and high-ripple current version of GXE series
- For automobile modules and networking equipment and other high temperature applications
- Endurance with ripple current : 3,000 hours at 125°C
- Solvent resistant type except 160 to 400V<sub>dc</sub>
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.



## ◆ SPECIFICATIONS

| Items  | Characteristics   |                                       |      |      |                           |                                       |                         |             |             |
|--|---|---------------------------------------|------|------|---------------------------|---------------------------------------|-------------------------|-------------|-------------|
| Category   | -40 to +125°C   |                                       |      |      |                           |                                       |                         |             |             |
| Temperature Range                                      |   |                                       |      |      |                           |                                       |                         |             |             |
| Rated Voltage Range                                    | 25 to 400V <sub>dc</sub>  |                                       |      |      |                           |                                       |                         |             |             |
| Capacitance Tolerance                                  | ±20%(M) (20°C, 120Hz)   |                                       |      |      |                           |                                       |                         |             |             |
| Leakage Current  | 25 to 100V <sub>dc</sub>  |                                       |      |      | 160 to 400V <sub>dc</sub> |                                       |                         |             |             |
|  | I=0.03CV or 4 μA, whichever is greater.   |                                       |      |      | CV ≤ 1,000 I=0.1CV+40     |                                       | CV > 1,000 I=0.04CV+100 |             |             |
|  | Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 1 minute)  |                                       |      |      |                           |                                       |                         |             |             |
| Dissipation Factor (tan δ)                             | Rated voltage (V <sub>dc</sub> )  | 25V                                   | 35V  | 50V  | 63V                       | 80V                                   | 100V                    | 160 to 250V | 350 to 400V |
|  | tan δ (Max.)  | 0.14                                  | 0.12 | 0.10 | 0.10                      | 0.08                                  | 0.08                    | 0.15        | 0.20        |
|  | When nominal capacitance exceeds 1,000 μF, add 0.02 to the value above for each 1,000 μF increase. (at 20°C, 120Hz)   |                                       |      |      |                           |                                       |                         |             |             |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )  | 25V                                   | 35V  | 50V  | 63V                       | 80V                                   | 100V                    | 160 to 250V | 350 to 400V |
|  | Z(-25°C)/Z(+20°C)   | 2                                     | 2    | 2    | 2                         | 2                                     | 2                       | 3           | 6           |
|  | Z(-40°C)/Z(+20°C)   | 4                                     | 4    | 4    | 4                         | 4                                     | 4                       | 6           | 12          |
| 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 (the peak voltage shall not exceed the rated voltage) for the 3,000 hours at 125°C.   |                                       |      |      |                           |                                       |                         |             |             |
|  | Rated Voltage   | 25 to 100V <sub>dc</sub>              |      |      |                           | 160 to 400V <sub>dc</sub>             |                         |             |             |
|  | Capacitance change  | ≤ ±30% of the initial value           |      |      |                           | ≤ ±20% of the initial value           |                         |             |             |
|  | D.F. (tan δ)  | ≤ 300% of the initial specified value |      |      |                           | ≤ 200% of the initial specified value |                         |             |             |
|  | Leakage current   | ≤ The initial specified value         |      |      |                           | ≤ 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 (500hours for 160 to 400V <sub>dc</sub> ) at 125°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. |                                       |      |      |                           |                                       |                         |             |             |
|  | Rated Voltage   | 25 to 100V <sub>dc</sub>              |      |      |                           | 160 to 400V <sub>dc</sub>             |                         |             |             |
|  | Capacitance change  | ≤ ±30% of the initial value           |      |      |                           | ≤ ±20% of the initial value           |                         |             |             |
|  | D.F. (tan δ)  | ≤ 300% of the initial specified value |      |      |                           | ≤ 200% of the initial specified value |                         |             |             |
|  | Leakage current   | ≤ The initial specified value         |      |      |                           | ≤ 500% of the initial specified value |                         |             |             |

## ◆ DIMENSIONS [mm]

- Terminal Code : E



Gas escape end seal

| ΦD  | 10         | 12.5 | 14.5 | 16  | 18  |
|-----|------------|------|------|-----|-----|
| Φd  | 0.6        | 0.6  | 0.8  | 0.8 | 0.8 |
| F   | 5.0        | 5.0  | 7.5  | 7.5 | 7.5 |
| ΦD' | ΦD+0.5max. |      |      |     |     |
| L'  | L+1.5max.  |      |      |     |     |

## ◆ PART NUMBERING SYSTEM



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



## ◆STANDARD RATINGS

| VV (V <sub>dc</sub> ) | Cap (μF)  | Case size φDxL (mm) | ESR (Ωmax./100kHz) |       | Rated ripple current (mA <sub>rms</sub> /125°C, 100kHz) | Part No.           | VV (V <sub>dc</sub> ) | Cap (μF) | Case size φDxL (mm) | ESR (Ωmax./100kHz) |                    | Rated ripple current (mA <sub>rms</sub> /125°C, 100kHz) | Part No.           |
|-----------------------|-----------|---------------------|--------------------|-------|---|--------------------|-----------------------|----------|---------------------|--------------------|--------------------|---|--------------------|
|                       |           |                     | 20°C               | -40°C |   |                    |                       |          |                     | 20°C               | -40°C              |   |                    |
| 25                    | 510       | 10 × 12.5           | 0.14               | 2.1   | 900   | EGXF250E□□511MJC5S | 50                    | 680      | 14.5 × 20           | 0.038              | 0.22               | 1,610   | EGXF500E□□681MU20S |
|                       | 750       | 10 × 16             | 0.094              | 1.5   | 1,300   | EGXF250E□□751MJ16S |                       | 750      | 12.5 × 25           | 0.038              | 0.18               | 2,030   | EGXF500E□□751MK25S |
|                       | 910       | 12.5 × 15           | 0.082              | 1.1   | 1,220   | EGXF250E□□911MK15S |                       | 750      | 18 × 15             | 0.085              | 0.87               | 1,370   | EGXF500E□□751MM15S |
|                       | 1,200     | 10 × 20             | 0.073              | 1.1   | 1,540   | EGXF250E□□122MJ20S |                       | 910      | 16 × 20             | 0.037              | 0.17               | 1,740   | EGXF500E□□911ML20S |
|                       | 1,200     | 14.5 × 15           | 0.067              | 0.80  | 1,320   | EGXF250E□□122MU15S |                       | 1,000    | 12.5 × 30           | 0.031              | 0.14               | 2,510   | EGXF500E□□102MK30S |
|                       | 1,500     | 10 × 25             | 0.042              | 0.24  | 1,880   | EGXF250E□□152MJ25S |                       | 1,000    | 14.5 × 25           | 0.031              | 0.14               | 2,480   | EGXF500E□□102MU25S |
|                       | 1,600     | 16 × 15             | 0.063              | 0.76  | 1,430   | EGXF250E□□162ML15S |                       | 1,200    | 12.5 × 35           | 0.027              | 0.11               | 2,900   | EGXF500E□□122MK35S |
|                       | 1,800     | 12.5 × 20           | 0.038              | 0.19  | 1,590   | EGXF250E□□182MK20S |                       | 1,200    | 18 × 20             | 0.036              | 0.14               | 1,830   | EGXF500E□□122MM20S |
|                       | 2,000     | 10 × 30             | 0.033              | 0.19  | 2,150   | EGXF250E□□202MJ30S |                       | 1,300    | 14.5 × 30           | 0.026              | 0.11               | 2,870   | EGXF500E□□132MU30S |
|                       | 2,200     | 14.5 × 20           | 0.030              | 0.17  | 1,780   | EGXF250E□□222MU20S |                       | 1,300    | 16 × 25             | 0.027              | 0.13               | 2,690   | EGXF500E□□132ML25S |
|                       | 2,400     | 18 × 15             | 0.053              | 0.51  | 1,630   | EGXF250E□□242MM15S |                       | 1,500    | 12.5 × 40           | 0.023              | 0.090              | 3,260   | EGXF500E□□152MK40S |
|                       | 2,700     | 12.5 × 25           | 0.030              | 0.14  | 2,280   | EGXF250E□□272MK25S |                       | 1,500    | 14.5 × 35           | 0.023              | 0.085              | 3,160   | EGXF500E□□152MM35S |
|                       | 3,000     | 16 × 20             | 0.029              | 0.13  | 1,890   | EGXF250E□□302ML20S |                       | 1,600    | 16 × 30             | 0.023              | 0.094              | 3,150   | EGXF500E□□162ML30S |
|                       | 3,300     | 12.5 × 30           | 0.025              | 0.10  | 2,760   | EGXF250E□□332MK30S |                       | 1,800    | 18 × 25             | 0.025              | 0.11               | 2,900   | EGXF500E□□182MM25S |
|                       | 3,600     | 14.5 × 25           | 0.025              | 0.11  | 2,760   | EGXF250E□□362MU25S |                       | 2,000    | 14.5 × 40           | 0.020              | 0.072              | 3,560   | EGXF500E□□202MU40S |
|                       | 4,300     | 12.5 × 35           | 0.022              | 0.080 | 3,120   | EGXF250E□□432MK35S |                       | 2,000    | 16 × 35             | 0.020              | 0.074              | 3,470   | EGXF500E□□202ML35S |
|                       | 4,300     | 16 × 25             | 0.022              | 0.092 | 3,030   | EGXF250E□□432ML25S |                       | 2,200    | 18 × 30             | 0.021              | 0.079              | 3,330   | EGXF500E□□222MM30S |
|                       | 4,300     | 18 × 20             | 0.028              | 0.10  | 1,930   | EGXF250E□□432MM20S |                       | 2,400    | 16 × 40             | 0.018              | 0.063              | 3,800   | EGXF500E□□242ML40S |
|                       | 4,700     | 14.5 × 30           | 0.020              | 0.081 | 3,090   | EGXF250E□□472MU30S |                       | 2,700    | 18 × 35             | 0.019              | 0.065              | 3,590   | EGXF500E□□272MM35S |
|                       | 5,100     | 12.5 × 40           | 0.019              | 0.068 | 3,610   | EGXF250E□□512MK40S |                       | 3,300    | 18 × 40             | 0.017              | 0.058              | 3,850   | EGXF500E□□332MM40S |
|                       | 5,100     | 14.5 × 35           | 0.018              | 0.065 | 3,430   | EGXF250E□□512MU35S |                       | 390      | 12.5 × 20           | 0.097              | 0.75               | 1,310   | EGXF630E□□391MK20S |
|                       | 5,100     | 16 × 30             | 0.018              | 0.071 | 3,330   | EGXF250E□□512ML30S |                       | 510      | 12.5 × 25           | 0.072              | 0.55               | 1,880   | EGXF630E□□511MK25S |
| 5,600                 | 18 × 25   | 0.020               | 0.078              | 3,200 | EGXF250E□□562MM25S                                      | 510                | 14.5 × 20             | 0.072    | 0.59                | 1,510              | EGXF630E□□511MU20S |   |                    |
| 6,800                 | 14.5 × 40 | 0.016               | 0.054              | 3,820 | EGXF250E□□682MU40S                                      | 620                | 16 × 20               | 0.062    | 0.39                | 1,630              | EGXF630E□□621ML20S |   |                    |
| 6,800                 | 16 × 35   | 0.016               | 0.056              | 3,630 | EGXF250E□□682ML35S                                      | 680                | 12.5 × 30             | 0.052    | 0.37                | 2,410              | EGXF630E□□681MK30S |   |                    |
| 7,500                 | 18 × 30   | 0.016               | 0.060              | 3,480 | EGXF250E□□752MM30S                                      | 680                | 14.5 × 25             | 0.054    | 0.40                | 2,130              | EGXF630E□□681MU25S |   |                    |
| 8,200                 | 16 × 40   | 0.015               | 0.048              | 3,930 | EGXF250E□□822ML40S                                      | 820                | 12.5 × 35             | 0.044    | 0.29                | 2,760              | EGXF630E□□821MK35S |   |                    |
| 9,100                 | 18 × 35   | 0.015               | 0.049              | 3,750 | EGXF250E□□912MM35S                                      | 820                | 18 × 20               | 0.055    | 0.29                | 1,750              | EGXF630E□□821MM20S |   |                    |
| 11,000                | 18 × 40   | 0.014               | 0.043              | 4,040 | EGXF250E□□113MM40S                                      | 910                | 14.5 × 30             | 0.042    | 0.30                | 2,700              | EGXF630E□□911MU30S |   |                    |
| 35                    | 300       | 10 × 12.5           | 0.14               | 2.1   | 900   | EGXF350E□□301MJC5S | 63                    | 910      | 16 × 25             | 0.047              | 0.27               | 2,300   | EGXF630E□□911ML25S |
|                       | 510       | 10 × 16             | 0.094              | 1.5   | 1,300   | EGXF350E□□511MJ16S |                       | 1,000    | 12.5 × 40           | 0.038              | 0.26               | 3,080   | EGXF630E□□102MK40S |
|                       | 560       | 12.5 × 15           | 0.082              | 1.1   | 1,220   | EGXF350E□□561MK15S |                       | 1,100    | 14.5 × 35           | 0.037              | 0.24               | 2,940   | EGXF630E□□112MU35S |
|                       | 680       | 10 × 20             | 0.073              | 1.1   | 1,540   | EGXF350E□□681MJ20S |                       | 1,100    | 16 × 30             | 0.037              | 0.23               | 2,940   | EGXF630E□□112ML30S |
|                       | 750       | 14.5 × 15           | 0.067              | 0.80  | 1,320   | EGXF350E□□751MU15S |                       | 1,200    | 18 × 25             | 0.044              | 0.22               | 2,440   | EGXF630E□□122MM25S |
|                       | 820       | 10 × 25             | 0.042              | 0.24  | 1,880   | EGXF350E□□821MJ25S |                       | 1,300    | 14.5 × 40           | 0.032              | 0.20               | 3,350   | EGXF630E□□132MU40S |
|                       | 1,100     | 12.5 × 20           | 0.038              | 0.19  | 1,590   | EGXF350E□□112MK20S |                       | 1,300    | 16 × 35             | 0.031              | 0.17               | 3,220   | EGXF630E□□132ML35S |
|                       | 1,100     | 16 × 15             | 0.063              | 0.76  | 1,430   | EGXF350E□□112ML15S |                       | 1,500    | 18 × 30             | 0.037              | 0.18               | 3,100   | EGXF630E□□152MM30S |
|                       | 1,200     | 10 × 30             | 0.033              | 0.19  | 2,150   | EGXF350E□□122MJ30S |                       | 1,800    | 16 × 40             | 0.028              | 0.15               | 3,590   | EGXF630E□□182ML40S |
|                       | 1,500     | 12.5 × 25           | 0.030              | 0.14  | 2,280   | EGXF350E□□152MK25S |                       | 2,000    | 18 × 35             | 0.028              | 0.13               | 3,450   | EGXF630E□□202MM35S |
|                       | 1,500     | 14.5 × 20           | 0.030              | 0.17  | 1,780   | EGXF350E□□152MU20S |                       | 2,400    | 18 × 40             | 0.023              | 0.10               | 3,690   | EGXF630E□□242MM40S |
|                       | 1,500     | 18 × 15             | 0.053              | 0.51  | 1,630   | EGXF350E□□152MM15S |                       | 240      | 12.5 × 20           | 0.097              | 0.75               | 1,310   | EGXF800E□□241MK20S |
|                       | 2,000     | 12.5 × 30           | 0.025              | 0.10  | 2,760   | EGXF350E□□202MK30S |                       | 330      | 12.5 × 25           | 0.072              | 0.55               | 1,880   | EGXF800E□□331MK25S |
|                       | 2,000     | 16 × 20             | 0.029              | 0.13  | 1,890   | EGXF350E□□202ML20S |                       | 330      | 14.5 × 20           | 0.072              | 0.59               | 1,510   | EGXF800E□□331MU20S |
|                       | 2,200     | 14.5 × 25           | 0.025              | 0.11  | 2,760   | EGXF350E□□222MU25S |                       | 390      | 16 × 20             | 0.062              | 0.39               | 1,630   | EGXF800E□□391ML20S |
|                       | 2,400     | 12.5 × 35           | 0.022              | 0.080 | 3,120   | EGXF350E□□242MK35S |                       | 430      | 12.5 × 30           | 0.052              | 0.37               | 2,410   | EGXF800E□□431MK30S |
|                       | 2,400     | 16 × 25             | 0.022              | 0.092 | 3,030   | EGXF350E□□242ML25S |                       | 470      | 14.5 × 25           | 0.054              | 0.40               | 2,130   | EGXF800E□□471MU25S |
|                       | 2,400     | 18 × 20             | 0.028              | 0.10  | 1,930   | EGXF350E□□242MM20S |                       | 560      | 12.5 × 35           | 0.044              | 0.29               | 2,760   | EGXF800E□□561MK35S |
|                       | 2,700     | 12.5 × 40           | 0.019              | 0.068 | 3,610   | EGXF350E□□272MK40S |                       | 560      | 16 × 25             | 0.047              | 0.27               | 2,300   | EGXF800E□□561ML25S |
|                       | 2,700     | 14.5 × 30           | 0.020              | 0.081 | 3,090   | EGXF350E□□272MJ30S |                       | 560      | 18 × 20             | 0.055              | 0.29               | 1,750   | EGXF800E□□561MM20S |
|                       | 3,000     | 14.5 × 35           | 0.018              | 0.065 | 3,430   | EGXF350E□□302MU35S |                       | 620      | 12.5 × 40           | 0.038              | 0.26               | 3,080   | EGXF800E□□621MK40S |
|                       | 3,300     | 16 × 30             | 0.018              | 0.071 | 3,330   | EGXF350E□□332ML30S |                       | 620      | 14.5 × 30           | 0.042              | 0.30               | 2,700   | EGXF800E□□621MU30S |
| 3,300                 | 18 × 25   | 0.020               | 0.078              | 3,200 | EGXF350E□□332MM25S                                      | 680                | 14.5 × 35             | 0.037    | 0.24                | 2,940              | EGXF800E□□681MK35S |   |                    |
| 3,900                 | 14.5 × 40 | 0.016               | 0.054              | 3,820 | EGXF350E□□392MU40S                                      | 680                | 16 × 30               | 0.037    | 0.23                | 2,940              | EGXF800E□□681ML30S |   |                    |
| 4,300                 | 16 × 35   | 0.016               | 0.056              | 3,630 | EGXF350E□□432ML35S                                      | 750                | 18 × 25               | 0.044    | 0.22                | 2,440              | EGXF800E□□751MM25S |   |                    |
| 4,300                 | 18 × 30   | 0.016               | 0.060              | 3,480 | EGXF350E□□432MM30S                                      | 820                | 14.5 × 40             | 0.032    | 0.20                | 3,350              | EGXF800E□□821MU40S |   |                    |
| 4,700                 | 16 × 40   | 0.015               | 0.048              | 3,930 | EGXF350E□□472ML40S                                      | 910                | 16 × 35               | 0.031    | 0.17                | 3,220              | EGXF800E□□911ML35S |   |                    |
| 5,100                 | 18 × 35   | 0.015               | 0.049              | 3,750 | EGXF350E□□512MM35S                                      | 910                | 18 × 30               | 0.037    | 0.18                | 3,100              | EGXF800E□□911MM30S |   |                    |
| 6,200                 | 18 × 40   | 0.014               | 0.043              | 4,040 | EGXF350E□□622MM40S                                      | 1,100              | 16 × 40               | 0.028    | 0.15                | 3,590              | EGXF800E□□112ML40S |   |                    |
| 50                    | 160       | 10 × 12.5           | 0.24               | 3.6   | 730   | EGXF500E□□161MJC5S | 100                   | 1,300    | 18 × 35             | 0.028              | 0.13               | 3,450   | EGXF800E□□132MM35S |
|                       | 240       | 10 × 16             | 0.16               | 2.5   | 1,080   | EGXF500E□□241MJ16S |                       | 1,500    | 18 × 40             | 0.023              | 0.10               | 3,690   | EGXF800E□□152MM40S |
|                       | 270       | 12.5 × 15           | 0.14               | 1.8   | 1,020   | EGXF500E□□271MK15S |                       | 130      | 12.5 × 20           | 0.12               | 0.94               | 1,210   | EGXF101E□□131MK20S |
|                       | 330       | 10 × 20             | 0.12               | 1.8   | 1,290   | EGXF500E□□331MJ20S |                       | 180      | 14.5 × 20           | 0.082              | 0.69               | 1,450   | EGXF101E□□181MU20S |
|                       | 390       | 14.5 × 15           | 0.12               | 1.4   | 1,090   | EGXF500E□□391MU15S |                       | 200      | 12.5 × 25           | 0.082              | 0.70               | 1,800   | EGXF101E□□201MK25S |
|                       | 430       | 10 × 25             | 0.055              | 0.31  | 1,740   | EGXF500E□□431MJ25S |                       | 240      | 12.5 × 30           | 0.062              | 0.52               | 2,290   | EGXF101E□□241MK30S |
|                       | 510       | 12.5 × 20           | 0.049              | 0.24  | 1,410   | EGXF500E□□511MK20S |                       | 240      | 16 × 20             | 0.071              | 0.53               | 1,580   | EGXF101E□□241ML20S |
|                       | 560       | 10 × 30             | 0.041              | 0.25  | 2,020   | EGXF500E□□561MJ30S |                       | 270      | 14.5 × 25           | 0.064              | 0.52               | 2,050   | EGXF101E□□271MU25S |
| 560                   | 16 × 15   | 0.11                | 1.3                | 1,190 | EGXF500E□□561ML15S                                      | 330                | 12.5 × 35             | 0.051    | 0.38                | 2,680              | EGXF101E□□331MK35S |   |                    |

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.



◆STANDARD RATINGS

| VV (V <sub>dc</sub> ) | Cap (μF) | Case size φDxL(mm) | ESR (Ωmax./100kHz) |       | Rated ripple current (mA <sub>rms</sub> /125°C, 100kHz) | Part No.           | VV (V <sub>dc</sub> ) | Cap (μF)           | Case size φDxL(mm) | ESR (Ωmax./100kHz) |                    | Rated ripple current (mA <sub>rms</sub> /125°C, 100kHz) | Part No.           |
|-----------------------|----------|--------------------|--------------------|-------|---|--------------------|-----------------------|--------------------|--------------------|--------------------|--------------------|---|--------------------|
|                       |          |                    | 20°C               | -40°C |   |                    |                       |                    |                    | 20°C               | -40°C              |   |                    |
| 100                   | 330      | 16×25              | 0.057              | 0.39  | 2,190   | EGXF101E□□331ML25S | *1                    | 39                 | 10×30              | —                  | —                  | 1,410   | EGXF251E□□390MJ30S |
|                       | 330      | 18×20              | 0.069              | 0.39  | 1,690   | EGXF101E□□331MM20S |                       | 47                 | 10×35              | —                  | —                  | 1,600   | EGXF251E□□470MJ35S |
|                       | 360      | 14.5×30            | 0.050              | 0.40  | 2,620   | EGXF101E□□361MU30S |                       | 51                 | 12.5×25            | —                  | —                  | 1,510   | EGXF251E□□510MK25S |
|                       | 390      | 12.5×40            | 0.044              | 0.33  | 2,970   | EGXF101E□□391MK40S |                       | 51                 | 14.5×20            | —                  | —                  | 1,340   | EGXF251E□□510MU20S |
|                       | 390      | 14.5×35            | 0.044              | 0.33  | 2,850   | EGXF101E□□391MU35S |                       | 56                 | 10×40              | —                  | —                  | 1,790   | EGXF251E□□560MJ40S |
|                       | 390      | 16×30              | 0.044              | 0.33  | 2,770   | EGXF101E□□391ML30S |                       | 62                 | 16×20              | —                  | —                  | 1,500   | EGXF251E□□620ML20S |
|                       | 430      | 18×25              | 0.054              | 0.32  | 2,310   | EGXF101E□□431MM25S |                       | 68                 | 12.5×30            | —                  | —                  | 1,770   | EGXF251E□□680MK30S |
|                       | 510      | 14.5×40            | 0.038              | 0.26  | 3,230   | EGXF101E□□511MU40S |                       | 68                 | 14.5×25            | —                  | —                  | 1,610   | EGXF251E□□680MU25S |
|                       | 510      | 16×35              | 0.037              | 0.26  | 3,010   | EGXF101E□□511ML35S |                       | 82                 | 12.5×35            | —                  | —                  | 1,970   | EGXF251E□□820MK35S |
|                       | 560      | 18×30              | 0.043              | 0.26  | 2,830   | EGXF101E□□561MM30S |                       | 82                 | 18×20              | —                  | —                  | 1,730   | EGXF251E□□820MM20S |
|                       | 620      | 16×40              | 0.032              | 0.21  | 3,320   | EGXF101E□□621ML40S |                       | 91                 | 14.5×30            | —                  | —                  | 1,880   | EGXF251E□□910MU30S |
|                       | 680      | 18×35              | 0.034              | 0.19  | 3,210   | EGXF101E□□681MM35S |                       | 91                 | 16×25              | —                  | —                  | 1,850   | EGXF251E□□910ML25S |
|                       | 820      | 18×40              | 0.029              | 0.16  | 3,410   | EGXF101E□□821MM40S |                       | 100                | 12.5×40            | —                  | —                  | 2,150   | EGXF251E□□101MK40S |
|                       | *1       | 51                 | 10×20              | —     | —   | 900                |                       | EGXF161E□□510MJ20S | 100                | 14.5×35            | —                  | —   | 2,030              |
| 62                    |          | 10×25              | —                  | —     | 1,200   | EGXF161E□□620MJ25S | 120                   | 18×25              | —                  | —                  | 2,050              | EGXF251E□□121MM25S                                      |                    |
| 75                    |          | 12.5×20            | —                  | —     | 1,220   | EGXF161E□□750MK20S | 130                   | 14.5×40            | —                  | —                  | 2,250              | EGXF251E□□131MU40S                                      |                    |
| 82                    |          | 10×30              | —                  | —     | 1,410   | EGXF161E□□820MJ30S | 16                    | 10×20              | —                  | —                  | 460                | EGXF351E□□160MJ20S                                      |                    |
| 100                   |          | 10×35              | —                  | —     | 1,600   | EGXF161E□□101MJ35S | 20                    | 10×25              | —                  | —                  | 610                | EGXF351E□□200MJ25S                                      |                    |
| 100                   |          | 14.5×20            | —                  | —     | 1,340   | EGXF161E□□101MU20S | 24                    | 12.5×20            | —                  | —                  | 680                | EGXF351E□□240MK20S                                      |                    |
| 110                   |          | 12.5×25            | —                  | —     | 1,510   | EGXF161E□□111MK25S | 27                    | 10×30              | —                  | —                  | 720                | EGXF351E□□270MJ30S                                      |                    |
| 120                   |          | 10×40              | —                  | —     | 1,790   | EGXF161E□□121MJ40S | 33                    | 10×35              | —                  | —                  | 820                | EGXF351E□□330MJ35S                                      |                    |
| 130                   |          | 16×20              | —                  | —     | 1,500   | EGXF161E□□131ML20S | 33                    | 14.5×20            | —                  | —                  | 870                | EGXF351E□□330MU20S                                      |                    |
| 150                   |          | 12.5×30            | —                  | —     | 1,770   | EGXF161E□□151MK30S | 36                    | 10×40              | —                  | —                  | 940                | EGXF351E□□360MJ40S                                      |                    |
| 150                   |          | 14.5×25            | —                  | —     | 1,610   | EGXF161E□□151MU25S | 36                    | 12.5×25            | —                  | —                  | 980                | EGXF351E□□360MK25S                                      |                    |
| 180                   |          | 12.5×35            | —                  | —     | 1,970   | EGXF161E□□181MK35S | 43                    | 16×20              | —                  | —                  | 970                | EGXF351E□□430ML20S                                      |                    |
| 180                   |          | 14.5×30            | —                  | —     | 1,880   | EGXF161E□□181MU30S | 47                    | 12.5×30            | —                  | —                  | 1,210              | EGXF351E□□470MK30S                                      |                    |
| 180                   |          | 18×20              | —                  | —     | 1,730   | EGXF161E□□181MM20S | 47                    | 14.5×25            | —                  | —                  | 1,210              | EGXF351E□□470MU25S                                      |                    |
| *1                    | 200      | 12.5×40            | —                  | —     | 2,150   | EGXF161E□□201MK40S | 56                    | 12.5×35            | —                  | —                  | 1,330              | EGXF351E□□560MK35S                                      |                    |
|                       | 200      | 16×25              | —                  | —     | 1,850   | EGXF161E□□201ML25S | 56                    | 16×25              | —                  | —                  | 1,130              | EGXF351E□□560ML25S                                      |                    |
|                       | 220      | 14.5×35            | —                  | —     | 2,030   | EGXF161E□□221MU35S | 56                    | 18×20              | —                  | —                  | 1,060              | EGXF351E□□560MM20S                                      |                    |
|                       | 240      | 18×25              | —                  | —     | 2,050   | EGXF161E□□241MM25S | 62                    | 14.5×30            | —                  | —                  | 1,410              | EGXF351E□□620MU30S                                      |                    |
|                       | 270      | 14.5×40            | —                  | —     | 2,250   | EGXF161E□□271MU40S | 68                    | 12.5×40            | —                  | —                  | 1,450              | EGXF351E□□680MK40S                                      |                    |
|                       | *1       | 36                 | 10×20              | —     | —   | 900                | EGXF201E□□360MJ20S    | 68                 | 14.5×35            | —                  | —                  | 1,590   | EGXF351E□□680MU35S |
|                       |          | 43                 | 10×25              | —     | —   | 1,200              | EGXF201E□□430MJ25S    | 75                 | 18×25              | —                  | —                  | 1,200   | EGXF351E□□750MM25S |
|                       |          | 56                 | 12.5×20            | —     | —   | 1,220              | EGXF201E□□560MK20S    | 91                 | 14.5×40            | —                  | —                  | 1,820   | EGXF351E□□910MU40S |
|                       |          | 62                 | 10×30              | —     | —   | 1,410              | EGXF201E□□620MJ30S    | 12                 | 10×20              | —                  | —                  | 460   | EGXF401E□□120MJ20S |
|                       |          | 75                 | 10×35              | —     | —   | 1,600              | EGXF201E□□750MJ35S    | 16                 | 10×25              | —                  | —                  | 610   | EGXF401E□□160MJ25S |
|                       |          | 75                 | 14.5×20            | —     | —   | 1,340              | EGXF201E□□750MU20S    | 20                 | 10×30              | —                  | —                  | 720   | EGXF401E□□200MJ30S |
|                       |          | 82                 | 10×40              | —     | —   | 1,790              | EGXF201E□□820MJ40S    | 20                 | 12.5×20            | —                  | —                  | 680   | EGXF401E□□200MK20S |
|                       |          | 82                 | 12.5×25            | —     | —   | 1,510              | EGXF201E□□820MK25S    | 24                 | 10×35              | —                  | —                  | 820   | EGXF401E□□240MJ35S |
|                       |          | 100                | 12.5×30            | —     | —   | 1,770              | EGXF201E□□101MK30S    | 24                 | 14.5×20            | —                  | —                  | 870   | EGXF401E□□240MU20S |
| 100                   |          | 16×20              | —                  | —     | 1,500   | EGXF201E□□101ML20S | 27                    | 12.5×25            | —                  | —                  | 980                | EGXF401E□□270MK25S                                      |                    |
| 110                   |          | 14.5×25            | —                  | —     | 1,610   | EGXF201E□□111MU25S | 30                    | 10×40              | —                  | —                  | 940                | EGXF401E□□300MJ40S                                      |                    |
| 130                   |          | 12.5×35            | —                  | —     | 1,970   | EGXF201E□□131MK35S | 33                    | 16×20              | —                  | —                  | 970                | EGXF401E□□330ML20S                                      |                    |
| 130                   |          | 14.5×30            | —                  | —     | 1,880   | EGXF201E□□131MU30S | 36                    | 12.5×30            | —                  | —                  | 1,210              | EGXF401E□□360MK30S                                      |                    |
| 130                   |          | 18×20              | —                  | —     | 1,730   | EGXF201E□□131MM20S | 36                    | 14.5×25            | —                  | —                  | 1,210              | EGXF401E□□360MU25S                                      |                    |
| 150                   | 12.5×40  | —                  | —                  | 2,150 | EGXF201E□□151MK40S                                      | 43                 | 12.5×35               | —                  | —                  | 1,330              | EGXF401E□□430MK35S |   |                    |
| 150                   | 16×25    | —                  | —                  | 1,850 | EGXF201E□□151ML25S                                      | 43                 | 18×20                 | —                  | —                  | 1,060              | EGXF401E□□430MM20S |   |                    |
| 160                   | 14.5×35  | —                  | —                  | 2,030 | EGXF201E□□161MU35S                                      | 47                 | 14.5×30               | —                  | —                  | 1,410              | EGXF401E□□470MU30S |   |                    |
| 180                   | 18×25    | —                  | —                  | 2,050 | EGXF201E□□181MM25S                                      | 47                 | 16×25                 | —                  | —                  | 1,130              | EGXF401E□□470ML25S |   |                    |
| 200                   | 14.5×40  | —                  | —                  | 2,250 | EGXF201E□□201MU40S                                      | 51                 | 12.5×40               | —                  | —                  | 1,450              | EGXF401E□□510MK40S |   |                    |
| *1                    | 24       | 10×20              | —                  | —     | 900   | EGXF251E□□240MJ20S | 56                    | 14.5×35            | —                  | —                  | 1,590              | EGXF401E□□560MU35S                                      |                    |
|                       | 30       | 10×25              | —                  | —     | 1,200   | EGXF251E□□300MJ25S | 62                    | 18×25              | —                  | —                  | 1,200              | EGXF401E□□620MM25S                                      |                    |
|                       | 36       | 12.5×20            | —                  | —     | 1,220   | EGXF251E□□360MK20S | 68                    | 14.5×40            | —                  | —                  | 1,820              | EGXF401E□□680MU40S                                      |                    |

□ □ : Enter the appropriate lead forming or taping code.  
 \*1: Assembly boards with the designated products attached cannot be cleaned.

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

(25 to 100V<sub>dc</sub>)

| Capacitance(μF) | Frequency(Hz) | 120  | 1k   | 10k  | 100k |
|-----------------|---------------|------|------|------|------|
| 130 to 240      |               | 0.40 | 0.82 | 0.93 | 1.00 |
| 270 to 560      |               | 0.50 | 0.85 | 0.94 | 1.00 |
| 620 to 2,000    |               | 0.60 | 0.87 | 0.95 | 1.00 |
| 2,200 to 4,300  |               | 0.75 | 0.90 | 0.95 | 1.00 |
| 4,700 to 11,000 |               | 0.85 | 0.95 | 0.98 | 1.00 |

(160 to 400V<sub>dc</sub>)

| Capacitance(μF) | Frequency(Hz) | 50   | 120  | 300  | 1k   | 10k  | 100k |
|-----------------|---------------|------|------|------|------|------|------|
| 12 to 33        |               | 0.15 | 0.30 | 0.45 | 0.65 | 0.95 | 1.00 |
| 36 to 270       |               | 0.25 | 0.35 | 0.50 | 0.70 | 0.96 | 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.



- 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.
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