

GPD New!
Series

- Guaranteed short time at 150°C
- Downsized and high-ripple current version of GPA series
- For automobile modules and other high temperature applications
- Endurance with ripple current : 2,000 to 3,000 hours at 125°C to 135°C
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

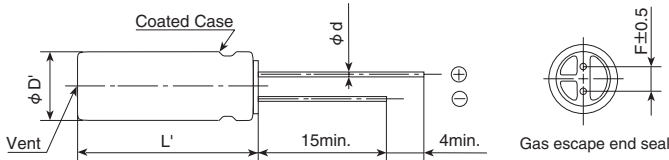


◆ SPECIFICATIONS

| Items | Characteristics | | | | | | |
|---|--|---|------|------|------|------|------|
| Category | -40 to +135°C | | | | | | |
| Temperature Range | -40 to +135°C | | | | | | |
| Rated Voltage Range | 25 to 100V _{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}) | 25V | 35V | 50V | 63V | 80V | 100V |
| | tanδ (Max.) | 0.14 | 0.12 | 0.10 | 0.10 | 0.08 | 0.08 |
| When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase. (at 20°C, 120Hz) | | | | | | | |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V _{dc}) | 25V | 35V | 50V | 63V | 80V | 100V |
| | Z(-25°C)/Z(+20°C) | 2 | 2 | 2 | 2 | 2 | 2 |
| | Z(-40°C)/Z(+20°C) | 4 | 4 | 4 | 4 | 4 | 4 |
| (at 120Hz) | | | | | | | |
| Endurance 1 | 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 specified period of time at 125°C or 135°C. | | | | | | |
| | Time | 125°C 3,000hours 135°C 25 to 50V _{dc} : 3,000hours 63 to 100V _{dc} : 2,000hours | | | | | |
| | Capacitance change | ≤ ±30% of the initial value | | | | | |
| | D.F. (tanδ) | ≤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°C after the test condition that the rated voltage is applied for 100 hours at 150°C and DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for the specified period of time at 125°C or 135°C. | | | | | | |
| | Time | 125°C 2,500hours 135°C 25 to 50V _{dc} : 2,500hours 63 to 100V _{dc} : 1,500hours | | | | | |
| | 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 1,000 hours 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. | | | | | | |
| | Capacitance change | ≤ ±30% of the initial value | | | | | |
| | D.F. (tanδ) | ≤300% of the initial specified value | | | | | |
| | Leakage current | ≤The initial specified value | | | | | |

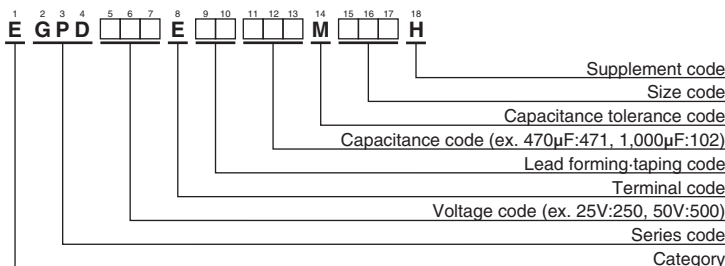
◆ DIMENSIONS [mm]

● Terminal Code : E



| φD | 12.5 | 14.5 | 16 | 18 |
|-----|------------|------|-----|-----|
| φd | 0.6 | 0.8 | 0.8 | 0.8 |
| F | 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

| WV (Vdc) | Cap (μF) | Case size φ D×L(mm) | ESR (Ω max/100kHz) | | Rated ripple current (mArms/100kHz) | | Part No. |
|-------------|-------------|------------------------|-----------------------|-------|--|----------------------|----------------------|
| | | | 20°C | -40°C | 125°C | 135°C | |
| 25 | 2,000 | 12.5×20 | 0.042 | 0.48 | 2,760 | 1,690 | EGPD250E □□ 202MK20H |
| | 2,700 | 14.5×20 | 0.038 | 0.37 | 2,990 | 1,830 | EGPD250E □□ 272MU20H |
| | 3,000 | 12.5×25 | 0.033 | 0.30 | 3,480 | 2,010 | EGPD250E □□ 302MK25H |
| | 3,300 | 16×20 | 0.035 | 0.27 | 3,040 | 1,860 | EGPD250E □□ 332ML20H |
| | 3,600 | 12.5×30 | 0.028 | 0.24 | 4,490 | 2,900 | EGPD250E □□ 362MK30H |
| | 3,900 | 14.5×25 | 0.030 | 0.28 | 4,120 | 2,780 | EGPD250E □□ 392MU25H |
| | 4,300 | 18×20 | 0.034 | 0.22 | 3,250 | 1,870 | EGPD250E □□ 432MM20H |
| | 4,700 | 12.5×35 | 0.025 | 0.21 | 5,140 | 3,190 | EGPD250E □□ 472MK35H |
| | 4,700 | 16×25 | 0.028 | 0.22 | 4,260 | 2,870 | EGPD250E □□ 472ML25H |
| | 5,100 | 12.5×40 | 0.024 | 0.19 | 5,810 | 3,470 | EGPD250E □□ 512MK40H |
| | 5,100 | 14.5×30 | 0.025 | 0.24 | 4,880 | 3,150 | EGPD250E □□ 512MU30H |
| | 5,600 | 14.5×35 | 0.023 | 0.20 | 5,420 | 3,360 | EGPD250E □□ 562MU35H |
| | 5,600 | 16×30 | 0.023 | 0.18 | 5,480 | 3,400 | EGPD250E □□ 562ML30H |
| | 6,200 | 18×25 | 0.027 | 0.19 | 4,500 | 2,900 | EGPD250E □□ 622MM25H |
| | 6,800 | 14.5×40 | 0.022 | 0.16 | 6,240 | 3,730 | EGPD250E □□ 682MU40H |
| | 7,500 | 16×35 | 0.020 | 0.14 | 6,070 | 3,630 | EGPD250E □□ 752ML35H |
| | 7,500 | 18×30 | 0.022 | 0.16 | 5,600 | 3,470 | EGPD250E □□ 752MM30H |
| | 9,100 | 16×40 | 0.019 | 0.12 | 6,810 | 3,930 | EGPD250E □□ 912ML40H |
| 10,000 | 18×35 | 0.019 | 0.12 | 6,280 | 3,750 | EGPD250E □□ 103MM35H | |
| 12,000 | 18×40 | 0.018 | 0.10 | 7,070 | 4,080 | EGPD250E □□ 123MM40H | |
| 35 | 1,300 | 12.5×20 | 0.042 | 0.48 | 2,760 | 1,690 | EGPD350E □□ 132MK20H |
| | 1,600 | 14.5×20 | 0.038 | 0.37 | 2,990 | 1,830 | EGPD350E □□ 162MU20H |
| | 1,800 | 12.5×25 | 0.033 | 0.30 | 3,480 | 2,010 | EGPD350E □□ 182MK25H |
| | 2,000 | 16×20 | 0.035 | 0.27 | 3,040 | 1,860 | EGPD350E □□ 202ML20H |
| | 2,200 | 12.5×30 | 0.028 | 0.24 | 4,490 | 2,900 | EGPD350E □□ 222MK30H |
| | 2,400 | 14.5×25 | 0.030 | 0.28 | 4,120 | 2,780 | EGPD350E □□ 242MU25H |
| | 2,400 | 18×20 | 0.034 | 0.22 | 3,250 | 1,870 | EGPD350E □□ 242MM20H |
| | 2,700 | 12.5×35 | 0.025 | 0.21 | 5,140 | 3,190 | EGPD350E □□ 272MK35H |
| | 3,000 | 14.5×30 | 0.025 | 0.24 | 4,880 | 3,150 | EGPD350E □□ 302MU30H |
| | 3,000 | 16×25 | 0.028 | 0.22 | 4,260 | 2,870 | EGPD350E □□ 302ML25H |
| | 3,300 | 12.5×40 | 0.024 | 0.19 | 5,810 | 3,470 | EGPD350E □□ 332MK40H |
| | 3,300 | 14.5×35 | 0.023 | 0.20 | 5,420 | 3,360 | EGPD350E □□ 332MU35H |
| | 3,600 | 16×30 | 0.023 | 0.18 | 5,480 | 3,400 | EGPD350E □□ 362ML30H |
| | 3,900 | 18×25 | 0.027 | 0.19 | 4,500 | 2,900 | EGPD350E □□ 392MM25H |
| | 4,300 | 14.5×40 | 0.022 | 0.16 | 6,240 | 3,730 | EGPD350E □□ 432MU40H |
| | 4,300 | 16×35 | 0.020 | 0.14 | 6,070 | 3,630 | EGPD350E □□ 432ML35H |
| | 4,700 | 18×30 | 0.022 | 0.16 | 5,600 | 3,470 | EGPD350E □□ 472MM30H |
| | 5,600 | 16×40 | 0.019 | 0.12 | 6,810 | 3,930 | EGPD350E □□ 562ML40H |
| 6,200 | 18×35 | 0.019 | 0.12 | 6,280 | 3,750 | EGPD350E □□ 622MM35H | |
| 7,500 | 18×40 | 0.018 | 0.10 | 7,070 | 4,080 | EGPD350E □□ 752MM40H | |
| 50 | 620 | 12.5×20 | 0.073 | 0.88 | 2,400 | 1,470 | EGPD500E □□ 621MK20H |
| | 750 | 14.5×20 | 0.063 | 0.73 | 2,760 | 1,590 | EGPD500E □□ 751MU20H |
| | 820 | 12.5×25 | 0.058 | 0.67 | 3,350 | 2,260 | EGPD500E □□ 821MK25H |
| | 1,000 | 16×20 | 0.050 | 0.55 | 2,960 | 1,870 | EGPD500E □□ 102ML20H |
| | 1,100 | 12.5×30 | 0.048 | 0.52 | 4,220 | 2,520 | EGPD500E □□ 112MK30H |
| | 1,100 | 14.5×25 | 0.048 | 0.52 | 3,750 | 2,420 | EGPD500E □□ 112MU25H |
| | 1,300 | 12.5×35 | 0.042 | 0.44 | 4,810 | 2,780 | EGPD500E □□ 132MK35H |
| | 1,300 | 16×25 | 0.042 | 0.44 | 4,040 | 2,500 | EGPD500E □□ 132ML25H |
| | 1,300 | 18×20 | 0.042 | 0.44 | 3,130 | 2,110 | EGPD500E □□ 132MM20H |
| | 1,500 | 14.5×30 | 0.038 | 0.39 | 4,590 | 2,740 | EGPD500E □□ 152MU30H |
| | 1,600 | 12.5×40 | 0.037 | 0.36 | 5,240 | 3,020 | EGPD500E □□ 162MK40H |
| | 1,600 | 14.5×35 | 0.035 | 0.36 | 5,060 | 2,920 | EGPD500E □□ 162MU35H |
| | 1,600 | 16×30 | 0.035 | 0.36 | 5,130 | 2,960 | EGPD500E □□ 162ML30H |
| | 1,800 | 18×25 | 0.033 | 0.32 | 4,230 | 2,530 | EGPD500E □□ 182MM25H |
| | 2,200 | 14.5×40 | 0.029 | 0.27 | 5,630 | 3,250 | EGPD500E □□ 222MU40H |
| | 2,200 | 16×35 | 0.029 | 0.27 | 5,480 | 3,160 | EGPD500E □□ 222ML35H |
| | 2,400 | 18×30 | 0.028 | 0.25 | 5,240 | 3,020 | EGPD500E □□ 242MM30H |
| | 2,700 | 16×40 | 0.025 | 0.22 | 5,930 | 3,420 | EGPD500E □□ 272ML40H |
| 3,000 | 18×35 | 0.024 | 0.20 | 5,870 | 3,390 | EGPD500E □□ 302MM35H | |
| 3,600 | 18×40 | 0.023 | 0.16 | 6,420 | 3,700 | EGPD500E □□ 362MM40H | |
| 63 | 390 | 12.5×20 | 0.072 | 0.56 | 1,640 | 1,420 | EGPD630E □□ 391MK20H |
| | 560 | 12.5×25 | 0.052 | 0.39 | 2,520 | 2,050 | EGPD630E □□ 561MK25H |
| | 560 | 14.5×20 | 0.061 | 0.40 | 1,790 | 1,550 | EGPD630E □□ 561MU20H |
| | 680 | 16×20 | 0.053 | 0.34 | 2,140 | 1,910 | EGPD630E □□ 681ML20H |
| | 750 | 12.5×30 | 0.042 | 0.30 | 3,110 | 2,630 | EGPD630E □□ 751MK30H |
| | 750 | 14.5×25 | 0.047 | 0.30 | 2,650 | 2,160 | EGPD630E □□ 751MU25H |
| | 910 | 12.5×35 | 0.035 | 0.25 | 3,760 | 2,970 | EGPD630E □□ 911MK35H |
| | 910 | 18×20 | 0.044 | 0.26 | 2,350 | 2,100 | EGPD630E □□ 911MM20H |

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

◆STANDARD RATINGS

| WV (Vdc) | Cap (μF) | Case size φ D×L(mm) | ESR (Ω max/100kHz) | | Rated ripple current (mArms/100kHz) | | Part No. |
|-------------|-------------|------------------------|-----------------------|-------|--|----------------------|----------------------|
| | | | 20°C | -40°C | 125°C | 135°C | |
| 63 | 1,000 | 14.5×30 | 0.037 | 0.23 | 3,360 | 2,840 | EGPD630E □□ 102MU30H |
| | 1,000 | 16×25 | 0.038 | 0.23 | 2,940 | 2,680 | EGPD630E □□ 102ML25H |
| | 1,100 | 12.5×40 | 0.031 | 0.22 | 4,610 | 3,260 | EGPD630E □□ 112MK40H |
| | 1,200 | 14.5×35 | 0.033 | 0.20 | 3,860 | 3,050 | EGPD630E □□ 122MU35H |
| | 1,200 | 16×30 | 0.034 | 0.20 | 3,860 | 3,050 | EGPD630E □□ 122ML30H |
| | 1,300 | 18×25 | 0.033 | 0.19 | 3,080 | 2,810 | EGPD630E □□ 132MM25H |
| | 1,500 | 14.5×40 | 0.028 | 0.16 | 4,930 | 3,490 | EGPD630E □□ 152MU40H |
| | 1,600 | 16×35 | 0.027 | 0.15 | 4,590 | 3,420 | EGPD630E □□ 162ML35H |
| | 1,600 | 18×30 | 0.028 | 0.15 | 4,080 | 3,220 | EGPD630E □□ 162MM30H |
| | 1,800 | 16×40 | 0.025 | 0.14 | 5,190 | 3,670 | EGPD630E □□ 182ML40H |
| 2,200 | 18×35 | 0.022 | 0.12 | 5,220 | 3,690 | EGPD630E □□ 222MM35H | |
| 2,400 | 18×40 | 0.021 | 0.11 | 5,660 | 3,820 | EGPD630E □□ 242MM40H | |
| 80 | 270 | 12.5×20 | 0.072 | 0.56 | 1,640 | 1,420 | EGPD800E □□ 271MK20H |
| | 360 | 14.5×20 | 0.061 | 0.40 | 1,790 | 1,550 | EGPD800E □□ 361MU20H |
| | 390 | 12.5×25 | 0.052 | 0.39 | 2,520 | 2,050 | EGPD800E □□ 391MK25H |
| | 470 | 16×20 | 0.053 | 0.34 | 2,140 | 1,910 | EGPD800E □□ 471ML20H |
| | 510 | 12.5×30 | 0.042 | 0.30 | 3,110 | 2,630 | EGPD800E □□ 511MK30H |
| | 510 | 14.5×25 | 0.047 | 0.30 | 2,650 | 2,160 | EGPD800E □□ 511MU25H |
| | 620 | 12.5×35 | 0.035 | 0.25 | 3,760 | 2,970 | EGPD800E □□ 621MK35H |
| | 620 | 18×20 | 0.044 | 0.26 | 2,350 | 2,100 | EGPD800E □□ 621MM20H |
| | 680 | 14.5×30 | 0.037 | 0.23 | 3,360 | 2,840 | EGPD800E □□ 681MU30H |
| | 680 | 16×25 | 0.038 | 0.23 | 2,940 | 2,680 | EGPD800E □□ 681ML25H |
| | 750 | 12.5×40 | 0.031 | 0.22 | 4,610 | 3,260 | EGPD800E □□ 751MK40H |
| | 750 | 14.5×35 | 0.033 | 0.20 | 3,860 | 3,050 | EGPD800E □□ 751MU35H |
| | 750 | 16×30 | 0.034 | 0.20 | 3,860 | 3,050 | EGPD800E □□ 751ML30H |
| | 820 | 18×25 | 0.033 | 0.19 | 3,080 | 2,810 | EGPD800E □□ 821MM25H |
| | 1,000 | 14.5×40 | 0.028 | 0.16 | 4,930 | 3,490 | EGPD800E □□ 102MU40H |
| | 1,000 | 16×35 | 0.027 | 0.15 | 4,590 | 3,420 | EGPD800E □□ 102ML35H |
| 1,100 | 18×30 | 0.028 | 0.15 | 4,080 | 3,220 | EGPD800E □□ 112MM30H | |
| 1,300 | 16×40 | 0.025 | 0.14 | 5,190 | 3,670 | EGPD800E □□ 132ML40H | |
| 1,300 | 18×35 | 0.022 | 0.12 | 5,220 | 3,690 | EGPD800E □□ 132MM35H | |
| 1,600 | 18×40 | 0.021 | 0.11 | 5,660 | 3,820 | EGPD800E □□ 162MM40H | |
| 100 | 160 | 12.5×20 | 0.090 | 0.75 | 1,580 | 1,410 | EGPD101E □□ 161MK20H |
| | 200 | 14.5×20 | 0.083 | 0.61 | 1,660 | 1,480 | EGPD101E □□ 201MU20H |
| | 220 | 12.5×25 | 0.068 | 0.55 | 2,140 | 1,960 | EGPD101E □□ 221MK25H |
| | 270 | 16×20 | 0.067 | 0.47 | 2,050 | 1,670 | EGPD101E □□ 271ML20H |
| | 300 | 12.5×30 | 0.052 | 0.41 | 2,950 | 2,330 | EGPD101E □□ 301MK30H |
| | 300 | 14.5×25 | 0.058 | 0.42 | 2,300 | 2,100 | EGPD101E □□ 301MU25H |
| | 360 | 12.5×35 | 0.045 | 0.35 | 3,530 | 2,630 | EGPD101E □□ 361MK35H |
| | 360 | 18×20 | 0.061 | 0.35 | 2,270 | 1,860 | EGPD101E □□ 361MM20H |
| | 390 | 14.5×30 | 0.047 | 0.33 | 3,120 | 2,460 | EGPD101E □□ 391MU30H |
| | 390 | 16×25 | 0.048 | 0.33 | 2,790 | 2,360 | EGPD101E □□ 391ML25H |
| | 430 | 12.5×40 | 0.038 | 0.29 | 4,140 | 2,920 | EGPD101E □□ 431MK40H |
| | 430 | 14.5×35 | 0.043 | 0.30 | 3,510 | 2,620 | EGPD101E □□ 431MU35H |
| | 470 | 16×30 | 0.041 | 0.27 | 3,440 | 2,720 | EGPD101E □□ 471ML30H |
| | 510 | 18×25 | 0.045 | 0.25 | 2,920 | 2,470 | EGPD101E □□ 511MM25H |
| | 560 | 14.5×40 | 0.034 | 0.23 | 4,330 | 3,060 | EGPD101E □□ 561MU40H |
| | 560 | 16×35 | 0.036 | 0.23 | 4,190 | 2,960 | EGPD101E □□ 561ML35H |
| | 620 | 18×30 | 0.037 | 0.20 | 3,920 | 2,920 | EGPD101E □□ 621MM30H |
| | 750 | 16×40 | 0.028 | 0.18 | 5,020 | 3,380 | EGPD101E □□ 751ML40H |
| 820 | 18×35 | 0.030 | 0.16 | 4,710 | 3,330 | EGPD101E □□ 821MM35H | |
| 910 | 18×40 | 0.026 | 0.14 | 5,280 | 3,560 | EGPD101E □□ 911MM40H | |

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

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

| Capacitance(μF) | Frequency(Hz) | | | |
|-----------------|---------------|------|------|------|
| | 120 | 1k | 10k | 100k |
| 160 to 200 | 0.40 | 0.75 | 0.90 | 1.00 |
| 220 to 620 | 0.50 | 0.85 | 0.94 | 1.00 |
| 680 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 12,000 | 0.85 | 0.95 | 0.98 | 1.00 |

The endurance of capacitors is reduced 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.

Please contact us for lifetime estimation.

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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