

定電圧ダイオード

ZENER DIODE (SILICON PLANER TYPE)

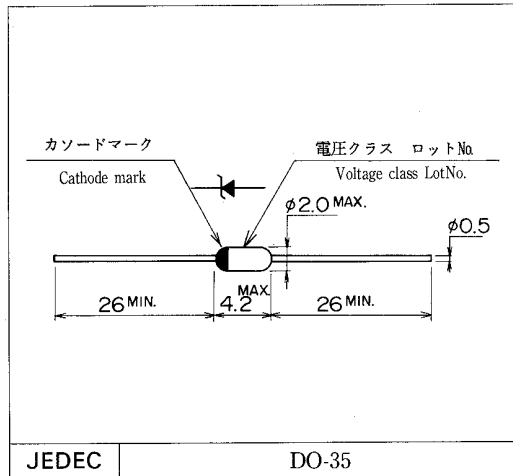
■特長 : Features

- 小型 Small type
- プレーナー形チップとガラス封止(DHD)構造により信頼性が高い
High reliability, planer and DHD glass sealing
- 電圧区分が細分化されており使い易い
Zener voltage classified into fine voltage.

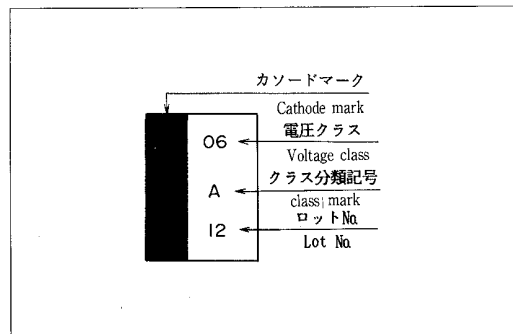
■用途 : Applications

- 定電圧 Voltage regulator
- サージ吸収 Surge absorber

■外形寸法 : Outline Drawings



■カソードマーク : Cathode Mark



■定格と特性 : Maximum Ratings and Characteristics

●絶対最大定格 : Absolute Maximum Ratings

| Items | Symbols | Ratings | Units |
|-------------------------------------|-----------|---------|-------|
| 許容損失 Allowable Power Dissipation | P_D | 500 | mW |
| 接合部温度 Junction Temperature | T_j | 175 | °C |
| 保存温度 Storage Temperature | T_{stg} | -65~175 | °C |

●電気的特性 : Electrical Characteristics($T_a=25^\circ\text{C}$)

| 形名 Type | 4% 電圧区分 | ツェナー電圧 | | 電圧区分 | ツェナー電圧 | | I_z (mA) 測定電流 | R_z (Ω) max. | I_z (mA) 測定電流 | R_{zk} (Ω) max. | I_{zk} (mA) 測定電流 | I_s (μA) max. | V_r (V) 測定電圧 | 温度係数 γ_z (%/°C) nom. |
|------------|------------|--------|------|------|--------|------|-----------------------|-------------------------------|-----------------------|----------------------------------|--------------------------|------------------------------------|----------------------|--------------------------------------|
| | | min. | max. | | min. | max. | | | | | | | | |
| EQA02-05 | AB | 4.55 | 4.93 | A | 4.55 | 4.80 | 20 | 30 | 30 | 1500 | 0.5 | 5 | 1 | +0.01 |
| | | | | B | 4.68 | 4.93 | | | | | | | | |
| | | | | C | 4.81 | 5.07 | | | | | | | | |
| | CD | 4.81 | 5.20 | D | 4.94 | 5.20 | | | | | | | | |
| | | | | E | 5.09 | 5.37 | | | | | | | | |
| | | | | F | 5.28 | 5.55 | | | | | | | | |
| EQA02-06 | AB | 5.45 | 5.91 | A | 5.45 | 5.73 | 20 | 20 | 20 | 1500 | 0.5 | 3 | 2 | +0.03 |
| | | | | B | 5.61 | 5.91 | | | | | | | | |
| | | | | C | 5.78 | 6.09 | | | | | | | | |
| | CD | 5.78 | 6.27 | D | 5.96 | 6.27 | | | | | | | | |
| | | | | E | 6.12 | 6.44 | | | | | | | | |
| | | | | F | 6.29 | 6.63 | | | | | | | | |
| EQA02-07 | AB | 6.49 | 7.01 | A | 6.49 | 6.83 | 20 | 15 | 20 | 600 | 0.25 | 2 | 3.5 | +0.04 |
| | | | | B | 6.66 | 7.01 | | | | | | | | |
| | CD | 6.85 | 7.45 | C | 6.85 | 7.22 | | | | | | | | |
| | | | | D | 7.07 | 7.45 | | | | | | | | |

| 形名 Type | 4% | ツェナー電圧 | | 2.5% | ツェナー電圧 | | 動作抵抗 | | 立上り動作抵抗 | | 飽和電流 | | 温度係数 | |
|------------|------|--------|-------|------|--------|-------|-----------------|--------|----------|---------|----------|---------|--------|-------------------|
| | 電圧区分 | Vz(V) | | 電圧区分 | Vz(V) | | Iz (mA) 測定電流 | Rz (Ω) | Izk (mA) | Rzk (Ω) | Izk (mA) | Is (μA) | Vr (V) | γz (%/°C) nom. |
| | | min. | max. | | min. | max. | | max. | 測定電流 | max. | 測定電流 | max. | 測定電圧 | |
| EQA02-08 | AB | 7.29 | 7.92 | A | 7.29 | 7.67 | 20 | 10 | 20 | 500 | 0.25 | 1 | 4 | +0.05 |
| | | | | B | 7.53 | 7.92 | | | | | | | | |
| | CD | 7.78 | 8.45 | C | 7.78 | 8.19 | | | | | | | | |
| | | | | D | 8.03 | 8.45 | | | | | | | | |
| EQA02-09 | AB | 8.29 | 9.01 | A | 8.29 | 8.73 | 20 | 10 | 20 | 500 | 0.25 | 1 | 5 | +0.055 |
| | | | | B | 8.57 | 9.01 | | | | | | | | |
| | CD | 8.83 | 9.59 | C | 8.83 | 9.30 | | | | | | | | |
| | | | | D | 9.12 | 9.59 | | | | | | | | |
| EQA02-10 | AB | 9.41 | 10.20 | A | 9.41 | 9.90 | 20 | 10 | 20 | 500 | 0.25 | 1 | 7 | +0.06 |
| | | | | B | 9.70 | 10.20 | | | | | | | | |
| | CD | 10.18 | 11.05 | C | 10.18 | 10.71 | | | | | | | | |
| | | | | D | 10.50 | 11.05 | | | | | | | | |
| EQA02-11 | AB | 10.82 | 11.71 | A | 10.82 | 11.38 | 10 | 15 | 10 | 500 | 0.25 | 1 | 8 | +0.065 |
| | | | | B | 11.13 | 11.71 | | | | | | | | |
| | CD | 11.44 | 12.35 | C | 11.44 | 12.03 | | | | | | | | |
| | | | | D | 11.74 | 12.35 | | | | | | | | |
| EQA02-12 | AB | 12.11 | 13.21 | A | 12.11 | 12.75 | 10 | 15 | 10 | 500 | 0.25 | 1 | 10 | +0.065 |
| | | | | B | 12.55 | 13.21 | | | | | | | | |
| EQA02-13 | AB | 12.99 | 14.13 | A | 12.99 | 13.66 | 10 | 20 | 10 | 500 | 0.25 | 1 | 11 | +0.068 |
| | | | | B | 13.44 | 14.13 | | | | | | | | |
| EQA02-14 | AB | 13.89 | 15.09 | A | 13.89 | 14.62 | 10 | 20 | 10 | 500 | 0.25 | 1 | 11 | +0.07 |
| | | | | B | 14.35 | 15.09 | | | | | | | | |
| EQA02-15 | AB | 14.80 | 16.04 | A | 14.80 | 15.57 | 10 | 20 | 10 | 500 | 0.25 | 1 | 12 | +0.07 |
| | | | | B | 15.25 | 16.04 | | | | | | | | |
| EQA02-16 | AB | 15.69 | 17.06 | A | 15.69 | 16.51 | 10 | 20 | 10 | 500 | 0.25 | 1 | 12.5 | +0.07 |
| | | | | B | 16.22 | 17.06 | | | | | | | | |
| EQA02-17 | AB | 16.82 | 18.33 | A | 16.82 | 17.70 | 10 | 25 | 10 | 500 | 0.25 | 1 | 13 | +0.075 |
| | | | | B | 17.42 | 18.33 | | | | | | | | |
| EQA02-18 | AB | 18.02 | 19.59 | A | 18.02 | 18.96 | 10 | 30 | 10 | 500 | 0.25 | 1 | 14 | +0.075 |
| | | | | B | 18.63 | 19.59 | | | | | | | | |
| EQA02-20 | AB | 19.23 | 21.20 | A | 19.23 | 20.22 | 5 | 40 | 5 | 500 | 0.25 | 1 | 16 | +0.075 |
| | | | | B | 20.15 | 21.20 | | | | | | | | |
| EQA02-21 | AB | 20.64 | 22.17 | A | 20.64 | 21.71 | 5 | 40 | 5 | 500 | 0.25 | 1 | 17 | +0.08 |
| | | | | B | 21.08 | 22.17 | | | | | | | | |
| EQA02-22 | AB | 21.52 | 23.18 | A | 21.52 | 22.63 | 5 | 40 | 5 | 500 | 0.25 | 1 | 18 | +0.08 |
| | | | | B | 22.05 | 23.18 | | | | | | | | |
| EQA02-23 | AC | 22.61 | 24.85 | A | 22.61 | 23.77 | 5 | 45 | 5 | 500 | 0.25 | 1 | 19 | +0.08 |
| | | | | B | 23.12 | 24.31 | | | | | | | | |
| | | | | C | 23.63 | 24.85 | | | | | | | | |
| EQA02-25 | AC | 24.26 | 26.95 | A | 24.26 | 25.52 | 5 | 45 | 5 | 500 | 0.25 | 1 | 20 | +0.08 |
| | | | | B | 24.97 | 26.26 | | | | | | | | |
| | | | | C | 25.63 | 26.95 | | | | | | | | |
| EQA02-28 | AC | 26.29 | 29.13 | A | 26.29 | 27.64 | 5 | 60 | 5 | 500 | 0.25 | 1 | 23 | +0.08 |
| | | | | B | 26.99 | 28.39 | | | | | | | | |
| | | | | C | 27.70 | 29.13 | | | | | | | | |
| EQA02-30 | AC | 28.36 | 31.22 | A | 28.36 | 29.82 | 5 | 70 | 5 | 500 | 0.25 | 1 | 24 | +0.085 |
| | | | | B | 29.02 | 30.51 | | | | | | | | |
| | | | | C | 29.68 | 31.22 | | | | | | | | |
| EQA02-32 | AC | 30.32 | 33.11 | A | 30.32 | 31.88 | 5 | 80 | 5 | 500 | 0.25 | 1 | 27 | +0.085 |
| | | | | B | 30.90 | 32.50 | | | | | | | | |
| | | | | C | 31.49 | 33.11 | | | | | | | | |
| EQA02-33 | AC | 32.14 | 35.13 | A | 32.14 | 33.79 | 5 | 90 | 5 | 500 | 0.25 | 1 | 27 | +0.085 |
| | | | | B | 32.79 | 34.49 | | | | | | | | |
| | | | | C | 33.40 | 35.13 | | | | | | | | |
| EQA02-35 | AC | 34.01 | 37.19 | A | 34.01 | 35.77 | 5 | 90 | 5 | 500 | 0.25 | 1 | 28 | +0.085 |
| | | | | B | 34.68 | 36.47 | | | | | | | | |
| | | | | C | 35.36 | 37.19 | | | | | | | | |