Panasonic

# DY243Z000L

## Silicon epitaxial planar type

For ESD protection and transient voltage suppressor

■ Features

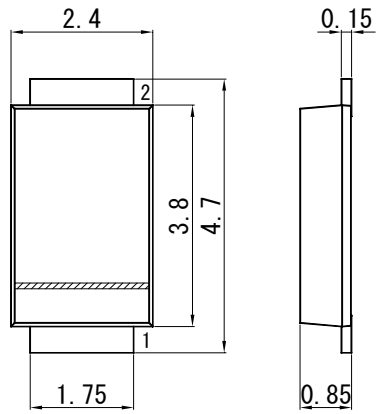
- IEC 61000-4-2 (ESD) ±30kV (air and contact)
- Low Clamping Voltage
- Low Capacitance
- Low Leak Current
- Halogen-free / RoHS compliant
  (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol: 3V

■ Packaging

Embossed type (Thermo-compression sealing) : 3 000 pcs / reel (standard)

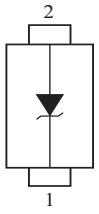
Unit: mm




1. Cathode
2. Anode

| | |
|---|---|
| Panasonic | TMiniP2-F2-B |
| JEITA | SC-110A |
| Code | — |

Internal Connection




■ Absolute Maximum Ratings Ta = 25 °C

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Total power dissipation *1 | PT | 2 | W |
| Forward current | IF | 200 | mA |
| Electrostatic discharge *2 | ESD | ±30 | kV |
| Electrostatic discharge *3 | ESD | ±30 | kV |
| Peak pulse power *4 | Ppp | 1000 | W |
| Peak pulse current *4 | Ipp | 138 | A |
| Junction temperature | Tj | 150 | °C |
| Operating ambient temperature | Topr | -40 to +85 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |

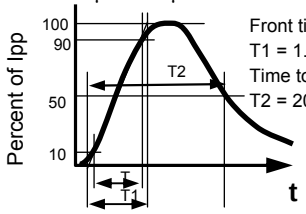
Note: *1 Mounted on ceramics print circuit board. (Board size: 50 mm × 50 mm)
Board thickness: 0.8 mm Soldering size: 2 mm × 2 mm
*2 Test method:IEC61000_4_2
(C = 150 pF,R = 330 Ω, contact discharge:10 times)
*3 Test method:IEC61000_4_2
(C = 150 pF,R = 330 Ω, air discharge:10 times)
*4 Test method:IEC61000_4_5 ( tp = 8/20μs, Unrepeated )

■ Electrical Characteristics Ta = 25 °C ± 3 °C

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Forward voltage | VF | IF = 200mA | | | 1.2 | V |
| Reverse stand-off voltage | VRWM | — | | | 3.0 | V |
| Reverse breakdown voltage *1, *2 | VBR | IR = 20mA | 4.85 | 5.1 | 5.36 | V |
| Reverse current | IR | VR = 3V | | | 200 | μA |
| Clamping voltage *3 | Vc | Ipp = 138A, tp = 8/20 μs | | | 11 | V |
| Terminal capacitance | Ct | VR = 0 V, f = 1 MHz | | 1480 | | pF |

Note: 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 Measuring methods for Diodes.
2. Absolute frequency of input and output is 5 MHz.
3. *1 The temperature must be controlled 25°C for VBR mesurement. VBR value measured at other temperature must be adjusted to VBR (25°C)
*2 VBR guaranted 20 ms after current flow.
*3 8μs × 20μs Pulse Waveform

8μs × 20μs Pulse Waveform




Front time:
T1 = 1.25 × T = 8μs±20%
Time to half value:
T2 = 20μs±20%