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|---------|-----------------------------------|---------|------------------------------|
| Product | TVS(Transient Voltage Suppressor) | Package | Surface mount molded package |
|---------|-----------------------------------|---------|------------------------------|

1. Life Test

| Test Item | Test Method/Standard | Test Condition | n [pcs] | Pn [pcs] |
|------------------------------|---|----------------|---------|----------|
| Steady state operation life1 | Ta=25°C、Pd=PdMax、VR=VR Max EIAJ ED-4701/100-101 | 1000h | 77 | 0 |
| Steady state operation life2 | Ta=Tstg Max.、VR=VR Max. EIAJ ED-4701/100-101 | 1000h | 77 | 0 |
| Temperature humidity bias | Ta=85°C、Rh=85%、VR=VR Max. EIAJ ED-4701/100-102 | 1000h | 77 | 0 |
| Temperature cycle | Tstg Min.(30min)~Tstg Max.(30min) EIAJ ED-4701/100-105 | 100cycle | 77 | 0 |
| Pressure cooker | Ta=121°C、2atm、Rh=100% JESD22-A102C | 48h | 77 | 0 |
| High Temperature storage | Ta=Tstg Max. EIAJ ED-4701/200-201 | 1000h | 77 | 0 |
| Low Temperature storage | Ta=Tstg Min. EIAJ ED-4701/200-202 | 1000h | 77 | 0 |

2. Stress Test

| Test Item | Test Method/Standard | Test Condition | n [pcs] | Pn [pcs] |
|------------------------------|---|----------------|---------|----------|
| Resistance to solder heat1 | Reflow at 245±5°C(peak temperature). EIAJ ED-4701/300-301 | 3times | 77 | 0 |
| Resistance to solder heat2 | Dipping into solder bath at 260±5°C. EIAJ ED-4701/300-302 | 10sec | 77 | 0 |
| Resistance to solder heat3 | Dipping leads into solder bath at 350±10°C. EIAJ ED-4701/300-302 | 3.5sec | 77 | 0 |
| Solderability | Dipping into solder bath at 245±5°C. EIAJ ED-4701/300-303 | 5sec | 77 | 0 |
| Thermal shock | 0 +5 °C(5min) ~ 100 +0 -5 °C(5min) EIAJ ED-4701/300-307 | 100cycle | 77 | 0 |
| Terminal strength (Push) | Push force on mounted PCB; 2.94N | 5sec | 77 | 0 |
| Terminal strength (PCB Bend) | Mounted PCB bending depth ; 1mm | 5times | 77 | 0 |

3. Measurement Item & Criteria

| Item | Condition | Criteria |
|--|---|--|
| Breakdown Voltage(VBR) | Per specification | Variation within ±20% from Initial value |
| Reverse Current(IR) | Per specification | Less than x2 of Initial value |
| Appearance | Visual inspection with Microscope(15X) | No mechanical damage |
| Solderability (Reflow) | Visual inspection with Microscope(15X) | Fillet is formed by the side except terminal tip cut side. |
| For solderability test only (Solder Bath) | Visual inspection with Microscope(15X) | The solder shall adhere to 95% or more of dipped terminal area except terminal tip cut side. |

※ Failure criteria : According to the electrical characteristics specified by the specification.

※ Sample standard:[Reliability level:90%][Failure reliability level(λ1):3%][C=0 decision]is adopted.
And the number of samples is being made 77 in accordance with single sampling inspection plan with exponential distribution type by attribute of MIL-STD-19500.

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