

Reliability Test Result

Product Digital Transistor Package SOT-416FL(EMT3F)

| 1. TEST RESULT | | | | | |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------|-----------|
| TEST ITEM | | | STANDARD | n[pcs] | Pn[pcs] |
| | 260±5°C , 30sec. , Reflow meth | 260±5°C , 30sec. , Reflow method 3times | | (Sample QTY.) | (NG QTY.) |
| Soldering heat resistance | 260±5°C , 10sec. , Solder−bath | 260±5°C , 10sec. , Solder─bath | | 22 | 0 |
| | 350±10°C , 3sec. , Hand solder | 350±10°C , 3sec. , Hand soldering | | 22 | 0 |
| Caldanahiliba | 245±5°C ,3sec. , Reflow method | 245±5°C ,3sec. , Reflow method | | 22 | 0 |
| Solderability | 245±5°C , 3sec. , Solder-bath | 245±5℃ , 3sec. , Solder-bath | | 22 | 0 |
| Temperature cycle | -55±5°C←→150±5°C 200cy | -55±5°C ←→150±5°C 200cycles | | 22 | 0 |
| High temp. high humidity reverse | e bias 85±2°C, 85±5%RH, specified | 85±2°C, 85±5%RH, specified bias ,1000hours | | 22 | 0 |
| Pressure cooker test | 121±2°C , 100%RH , 203kPa , | 121±2°C , 100%RH , 203kPa , 100hours | | 22 | 0 |
| High temperature reverse bias | Tj max., specified bias , 1000ho | Tj max., specified bias , 1000hours | | 22 | 0 |
| High temperature gate bias | Tj max, VGSS(max), , 1000hours | Tj max, VGSS(max), , 1000hours | | 22 | 0 |
| Intermittent Operation Life or Power and Temperature Cycle | Ta=25±5°C, ∠Tj≥100°C, ON 120s/OFF 120s per cycle Duration: 15000cycles Ta=-40(+0/-10)°C~+85(+10, ON 300s/OFF 300s per cycle | ON 120s/OFF 120s per cycle Duration: 15000cycles $Ta = -40(+0/-10)^{\circ}C \sim +85(+10/-0)^{\circ}C,$ | | 22 | 0 |
| | Duration: 6000cycles | | | JESD22 A-105 | |
| Lead strength (lead pull) | Sample body fixed, pulling lead a | Sample body fixed, pulling lead axis direction , 1.0N , 10±1sec. | | 22 | 0 |
| | • | | | | |
| 2. MEASUREMENT ITEM & C | RITERIA | T | | | |
| ITEM | CONDITION | CRITERIA | | | |
| Cutoff current : ICBO | Per specification | | | | |
| Cutoff current : IEBO | Per specification | According to the electrical characteristics specified by the spe | | specification | |
| DC current gain : hFE | Per specification | | | | |
| Physical | Visual check | No outstanding change in physical. | | | |
| Solderability | Visual check | Reflow Soldering | Immersed surfase, other than the end of pin as cut-surface, must be covered by solder. | | |
| | | Solder-bath | More than 95% of the electrode must be covered with solder. | | |
| 2 IUDOEMENT | | | | | |

3. JUDGEMENT

No failure is observed from each test item.

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