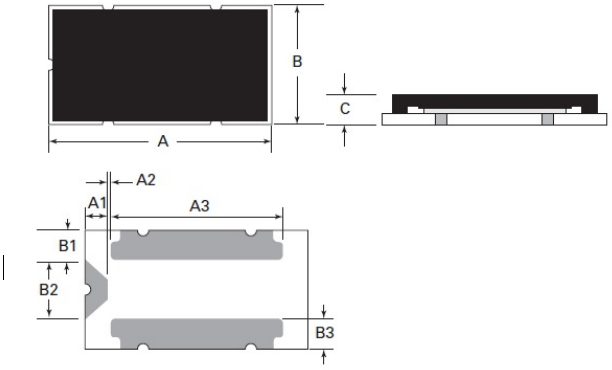
# ITV Devices

**SMT Battery Protection Device**

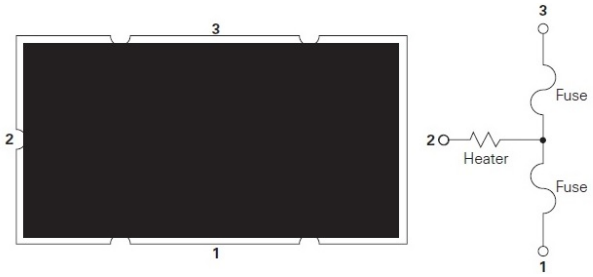
# Specification Status: Released

## TABLE I. Electrical Rating:

| | |
|---|---|
| **Current Capacity** | 100% x $I_{rated}$<br>No Melting |
| **Cut Time** | 200% x $I_{rated}$<br>< 1 min |
| **Interrupting Current** | 100A, power on 5 ms, power off 995 ms, 10000 cycles<br>No Melting |
| **Over Voltage Operation** | In operation voltage range, the fusing time is <1min. |




## Device Circuit:




### TABLE II. DIMENSIONS (mm):

| | |
|---|---|
| A | 9.50 ± 0.2 |
| B | 5.00 ± 0.3 |
| C | 2.00 max |
| A1 | 0.89 ± 0.1 |
| A2 | 0.15 ± 0.1 |
| A3 | 7.32 ± 0.1 |
| B1 | 1.32 ± 0.1 |
| B2 | 2.36 ± 0.1 |
| B3 | 1.25 ± 0.1 |

## TABLE III. Electrical Specification:

| Part Number | Marking | $I_{rated}$ (A) | Cells in series | $V_{max}$ ($V_{DC}$) | $I_{break}$ (A) | $V_{OP}$ (V) | Resistance | | Agency Approval | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | $R_{heater}$ (Ω) | $R_{fuse}$ (mΩ) | | |
| ITV9550L1230 | LF1230 | 30 | 3 | 62 | 80 | 8.4 ~ 13.2 | 3.2 ~ 5.2 | 0.5 ~ 2.5 | Pending | Pending |

**Notes:**

$I_{rated:}$ Current carrying capacity that is measured at 40ºC thermal equilibrium condition.

$I_{break}$: The current that the fuse element is able to interrupt.

$V_{max}$: The maximum voltage that can be cut off by fuse.

$V_{OP}$: Range of operation voltage.

$R_{heater}$: The resistance of the heating element.

$R_{fuse}$: The resistance of the fuse element.

Cells in series: Number of battery cells connected in series in the circuit for ITV device to protect.

• Value specified is determined by using the PWB with 6mm*2oz copper traces, AWG10 covered wire, and 0.6mm glass epoxy PCB.

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Specifications are subject to change without notice.
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## Materials Information:

**ROHS Compliant**

Directive 2011/65/EU Compliant

**ELV Compliant**

Directive 2000/53/EC Compliant

**Halogen Free***

HF

* Halogen Free refers to: Br≤900ppm, Cl≤900ppm, Br+Cl≤1500ppm.

## Environmental Specifications:

| | |
|---|---|
| **Storage Temperature** | 0~35ºC, ≦ 70%RH<br>3 months after shipment |
| **Operating Temperature** | -10ºC to +65ºC |
| **Hot Passive Aging** | 100±5ºC, 250 hours<br>No structural damage and functional failure |
| **Humidity Aging** | 60ºC±2ºC, 90~95%R.H. 250 hours<br>No structural damage and functional failure |
| **Cold Passive Aging** | -20±3ºC, 500 hours<br>No structural damage and functional failure |
| **Thermal Shock** | MIL-STD-202 Method 107G<br>+125ºC /-55ºC, 100 times<br>No structural damage and functional failure |

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