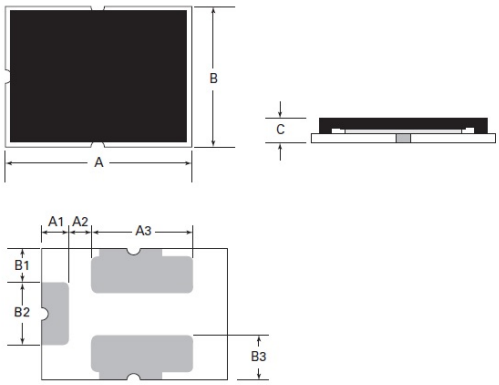
ITV Devices

SMT Battery Protection Device

Specification Status: Released

TABLE I. Electrical Rating:

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



Device Circuit:

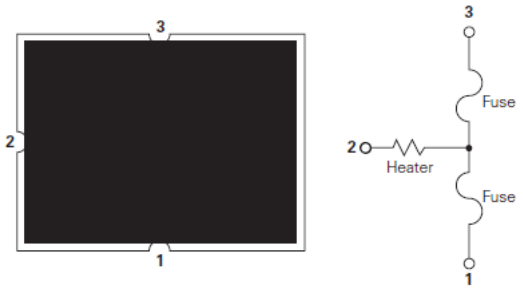


TABLE II. DIMENSIONS (mm):

A	4.00 ± 0.2
B	3.00 ± 0.3
C	0.90 max
A1	0.58 ± 0.1
A2	0.50 ± 0.1
A3	2.20 ± 0.1
B1	0.80 ± 0.1
B2	1.44 ± 0.1
B3	1.03 ± 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)	cULus	TÜVRheinland
ITV4030L1215	LF1215	15	3	36	50	7.4 ~ 13.8	5.5 ~ 8.4	1.0 ~ 3.0	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 2mm*2oz copper traces, AWG18 covered wire, and 0.6mm glass epoxy PCB.

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