

ITV Devices SMT Battery Protection Device

PRODUCT: ITV4030L1412

DOCUMENT: SCD29519 REV LETTER: A

REV DATE: MARCH 7, 2020

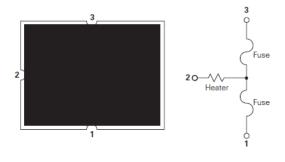
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Specification Status: Released

TABLE I. Electrical Rating:

Current	100% x I _{rated}					
Capacity	No Melting					
Cut Time	200% x I _{rated}					
	< 1 min					
Interrupting	5 x I _{rated} , power on 5 ms, power off 995 ms, 10000 cycles					
Current	No Melting					
Over Voltage	In apparation valtage range, the fusing time is 14 min					
Operation	In operation voltage range, the fusing time is <1min.					

Device Circuit:



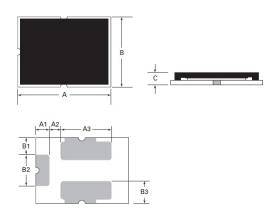


TABLE II. DIMENSIONS (mm):

Α	4.00 ± 0.2
В	3.00 ± 0.3
С	0.90 max
A1	0.58 ± 0.1
A2	0.50 ± 0.1
А3	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}	Cells in	V_{max}	I _{break}	V _{OP}	Resistance		Agency Approval	
Part Number	Marking	(A)	series	(V _{DC})	(A)	(V)	$R_{heater} \ (\Omega)$	R_{fuse} (m Ω)	c 71 2°us	TÜVRheinland
ITV4030L1412	LF1412	12	4	36	50	10.5 ~ 19.6	11.2 ~ 20.0	1.5 ~ 3.5	Pending	Pending

Notes:

 $I_{\text{rated:}}\textsc{Current}$ carrying capacity that is measured at 40°C 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.



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Materials Information:

ROHS Compliant

ELV Compliant

Halogen Free*



Directive 2011/65/EU Compliant

Directive 2000/53/EC Compliant

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

Environmental Specifications:

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

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