

Cliff Electronic Components Ltd.

76 Holmethorpe Avenue, Holmethorpe Industrial Estate,

Redhill, Surrey, RH1 2PF, England, UK

Tel: 01737-771375 Fax: 01737-766012 Website: www.cliffuk.co.uk

SPECIFICATIONS

A) SCOPE

This specification covers: FC68148 – DC10A + FC68149 – DC10B

B) CHARACTERISTICS

Standard atmospheric specified, measurements shall be made at temperature , humidity and air pressure within the following limit :

Ambient temperature	:	5 °C	to	35 °C
Relative humidity	:	45 %	to	85 %
Air pressure	:	85 Kpa	to	106 Kpa

	:	5 °C	to	35 °C
	:	45 %	to	85 %
	:	85 Kpa	to	106 Kpa
Operating temperature range	:	-20 °C	to	60 °C
Storage temperature range	:	-20 °C	to	70 °C

C) ELECTRICAL CHARACTERISTICS

ITEM	TEST CONDITIONS	SPECIFICATION
(C1)Rated Voltage Rated Current		DC 12V 5A
(C2)Insulation Resistance	A voltage of 500V DC shall be applied to the terminals. After which measurement shall be made. DC 500V	100M Ω or more \geq 100M Ω

Cliff Electronic Components Ltd.

76 Holmethorpe Avenue, Holmethorpe Industrial Estate,
Redhill, Surrey, RH1 2PF, England, UK

Tel: 01737-771375 Fax: 01737-766012 Website: www.cliffuk.co.uk

ITEM	TEST CONDITIONS	SPECIFICATION
(C3)Contact Resistance	<p>Measurement shall be made at 1 K Hz with 100 mA or less (With the test plug as show in item G)</p> <p><1>Initial before any testing</p> <p>a · Pin to contact or (T-TS) (N.C.).</p> <p>b · Plug (t,s,)shield to socket or (T,S,) (N.O.).</p> <p><2>After life test with mating plug</p> <p>a · Pin to contact or (T-TS) (N.C.).</p> <p>b · Plug (t,s,)shield to socket or (T,S,) (N.O.).</p>	<p>Initial :</p> <p>a · 30mΩ or Less ≤ 30mΩ</p> <p>b · 50mΩ or Less ≤ 50mΩ</p> <p>After life :</p> <p>a · 60mΩ or Less ≤ 60mΩ</p> <p>b · 100mΩ or Less ≤ 100mΩ</p>
(C4)Dielectric Strength	<p>Withstand 0.5 mA (Trip current) 500V AC(50 or 60 Hz) between any open terminal for 1 minute.</p> <p>(Open terminal: Between each terminal which should not make contact , before plug insert to socket T-S, after plug insert to socket T-TS)</p>	Without distinct Damage

Cliff Electronic Components Ltd.

76 Holmethorpe Avenue, Holmethorpe Industrial Estate,
Redhill, Surrey, RH1 2PF, England, UK

Tel: 01737-771375 Fax: 01737-766012 Website: www.cliffuk.co.uk

--	--	--

D) MECHANICAL CHARACTERISTICS

ITEM	TEST CONDITIONS	SPECIFICATION
(D1) Insertion force and Withdrawal force	Initial (With the test plug as show in item G)	Insertion force 0.3kgf ~ 3kgf
		Withdrawal force 0.3kgf ~ 3kgf
	After life test (With the test plug as show in item G)	Insertion force 0.2kgf ~ 3kgf
		Withdrawal force 0.2kgf ~ 3kgf
(D2) Terminal strength	Terminals must withstand a 500g minimum pull for 10 seconds before movement or break from housing occurs , but deformation of terminal is authorized .	

E) ENDURANCE CHARACTERISTICS

ITEM	TEST CONDITIONS
(E1) Life test	The life test shall consist of 5,000 cycles of insertion and withdrawal with test plug(Show in item G), at a rate of 20 to 30 cycles per minute under no load .
(E2) Soldering test	The terminal of JACK tested shall be dipped into

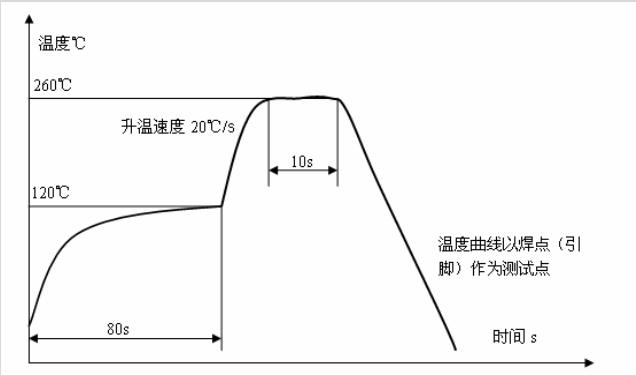
Cliff Electronic Components Ltd.

76 Holmethorpe Avenue, Holmethorpe Industrial Estate,
Redhill, Surrey, RH1 2PF, England, UK

Tel: 01737-771375 Fax: 01737-766012 Website: www.cliffuk.co.uk

	soldering flux or equivalent for 5 ~ 10 seconds and then immersed into molten solder Sn at $260 \pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds , the coverage should more than 95% .
(E3)Soldering heat	The terminal for a printed circuit board . Temperature of solder : $260 \pm 5^{\circ}\text{C}$ Dip time : 5 ± 1 seconds .
(E4) Hand Soldering Temperature	Temperature of solder : $350 \pm 10^{\circ}\text{C}$ Dip time : 3 ± 0.5 seconds .

F) DIP

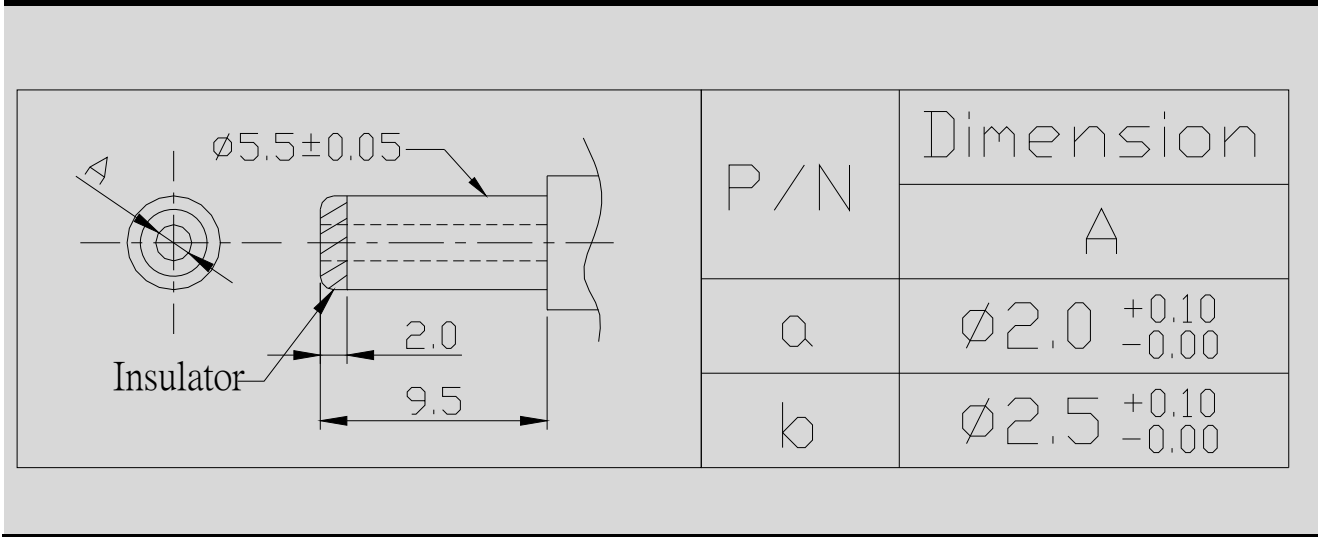
ITEM	TEST CONDITIONS
The temperature peak without lead.	 <p>Pre-heating temperature is $25 \sim 120^{\circ}\text{C}$,for a duration about 80 seconds.</p> <p>The peak temperature is 260°C , the duration for 10 seconds.</p>

Cliff Electronic Components Ltd.

76 Holmethorpe Avenue, Holmethorpe Industrial Estate,
Redhill, Surrey, RH1 2PF, England, UK

Tel: 01737-771375 Fax: 01737-766012 Website: www.cliffuk.co.uk

G) MATED PLUG



	A		C		M
	P	Jacky	H	Dragon	A
	V		K		K
2014. 02. 21	D		D		E
					Roy

iq.ul.com

click here to see additional information supplied by UL Prospector®

The information presented on the UL Prospector datasheet was acquired by UL Prospector from the producer of the material. UL Prospector makes substantial efforts to assure the accuracy of this data. However, UL Prospector assumes no responsibility for the data values and strongly encourages that upon final material selection, data points are validated with the material supplier.

Component - Plastics**E59481**[\[guide info\]](#)**CHANG CHUN PLASTICS CO LTD**

7TH FL, 301 SONGKIANG RD, TAIPEI 104 TW

4830

Polybutylene Terephthalate (PBT), glass reinforced "LONGLITE", furnished as pellets

Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
ALL	3.0-3.2	V-0	0	1	75	75	75

Comparative Tracking Index (CTI): 3

Inclined Plane Tracking (IPT): -

Dielectric Strength (kV/mm): -

Volume Resistivity (10^x ohm-cm): -

High-Voltage Arc Tracking Rate (HVTR): 2

High Volt, Low Current Arc Resis
(D495): 7

Dimensional Stability (%): -

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 1987-09-01

Last Revised: 2015-09-17

© 2017 UL LLC

**IEC and ISO Test Methods**

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	3.0-3.2	V-0 (ALL)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	C	-	-
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m ²	-	-
ISO Izod Impact	ISO 180	kJ/m ²	-	-
ISO Charpy Impact	ISO 179-2	kJ/m ²	-	-