

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 FOR PART No. FC681473 Ø2.1mm + FC681474 Ø2.5mm

A) Description: M12.7 PANEL MOUNT DC SOCKETS

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 |

| | | | | |
|-----------------------------|---|--------|----|-------|
| Operating temperature range | : | -40 °C | to | 85 °C |
| Storage temperature range | : | -40 °C | to | 85 °C |

C) ELECTRICAL CHARACTERISTICS

| ITEM | TEST CONDITIONS | SPECIFICATION |
|--|---|----------------------------|
| (C1)Rated Voltage Rated Current | | DC 12V 1A |
| (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 ≥ 100M Ω |

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| 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 $\leq 30m\Omega$</p> <p>b、50mΩ or Less $\leq 50m\Omega$</p> <p>After life :</p> <p>a、60mΩ or Less $\leq 60m\Omega$</p> <p>b、100mΩ or Less $\leq 100m\Omega$</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 |

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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 ~ 2.0kgf |
| | | Withdrawal force |
| | | 0.3kgf ~ 2.0kgf |
| | After life test (With the test plug as show in item G) | Insertion force |
| | | 0.3kgf ~ 2.0kgf |
| | | Withdrawal force |
| | | 0.3kgf ~ 2.0kgf |
| (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 soldering flux or equivalent for 5 ~ 10 seconds and then immersed into molten solder Sn at $260 \pm 5^{\circ}\text{C}$ for |

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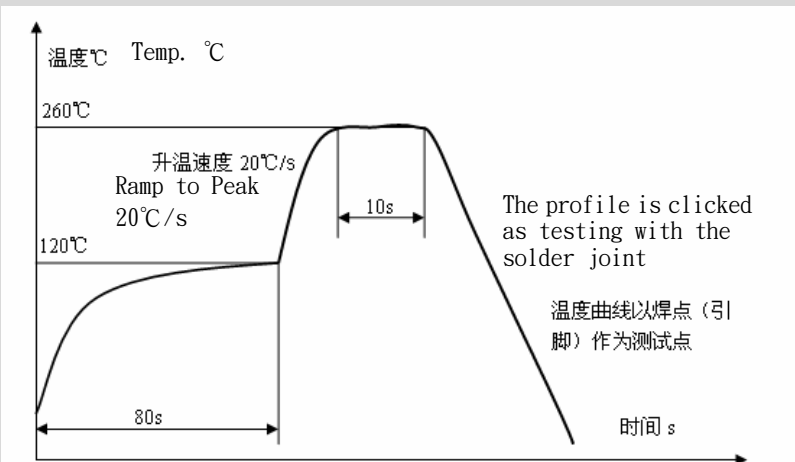
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| | |
|------------------------------------|---|
| (E3)Soldering heat | The terminal for a printed circuit board . Temperature of solder : $260 \pm 5^{\circ}\text{C}$ Dip time : 5 ± 1 seconds . |
| (E4) Hand Soldering Temperature | Temperature of solder : $350 \pm 10^{\circ}\text{C}$ Dip time : 3 ± 0.5 seconds . |

F) . DIP

| ITEM | TEST CONDITIONS |
|------------------------------------|--|
| The temperature peak without lead. | <div></div> <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> |

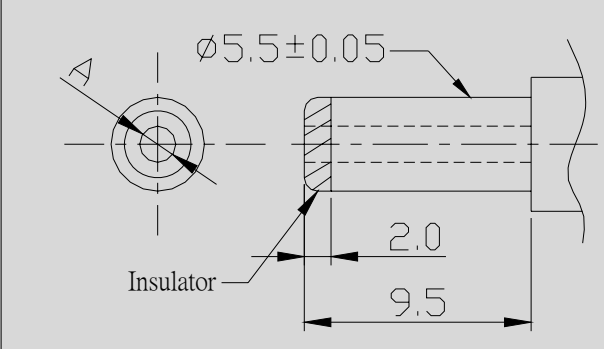
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G) . MATED PLUG

| | | |
|---|-------|---|
|  | P / N | Dimension |
| | | A |
| | a | Ø2.0 $\begin{smallmatrix} +0.10 \\ -0.00 \end{smallmatrix}$ |
| | b | Ø2.5 $\begin{smallmatrix} +0.10 \\ -0.00 \end{smallmatrix}$ |