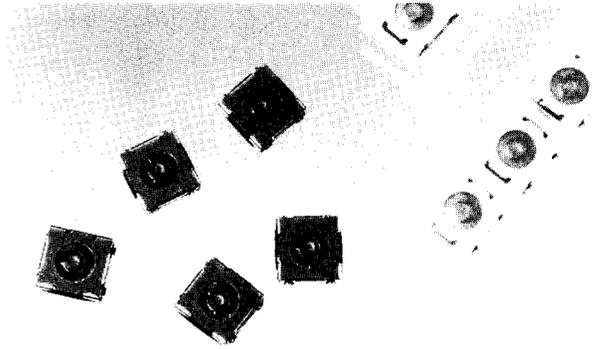


RS 789-422 789-438

MEC CITEC

**POTENTIOMETERS
INDUCTORS, SMDs
SWITCHES, NETWORKS
ENCODERS
POWER COMPONENTS**

Surface Mounted Switches **TYPE QF/QH/PH SERIES**



The 'state of the art' range of SMT switches are manufactured from high temperature materials making them all suitable for IR and Vapour phase reflow solder processes. There are also versions that are hermetically sealed and suitable for total immersion wave soldering. The switches are push to make single pole momentary action and have a distinctive tactile feel. They are available with earth terminals if required and are supplied in a standard 12mm tape on reels for auto-placement.

MEC CITEC KEY FEATURES

- HIGH RELIABILITY

- ATTRACTIVELY PRICED

- HERMETICALLY SEALED VERSIONS

- PROFILES DOWN TO 2mm ABOVE BOARD

- DIP AND WAVE SOLDER VERSIONS. QF.

- 100,000 OPERATIONS MINIMUM

- SUPPLIED IN STANDARD S.M. TAPE

- TEMP RANGE -20°C to +70°C



RS Components GmbH

Nordendstr. 72-76, Postf. 13 65

6082 Mörfelden-Walldorf

Tel. 06105 / 401-0

Fax 06105 / 401-115

SPECIFICATION

ELECTRICAL

| | |
|------------------------|-----------------------------------|
| Power Rating: | DC 15V, 20mA |
| Contact Resistance: | 100m Ω max |
| Insulation Resistance: | 50M Ω min (DC100V) |
| Voltage Proof: | AC250V for 1 minute |
| Bouncing: | 3 msec max (ON) 10 msec max (OFF) |

MECHANICAL

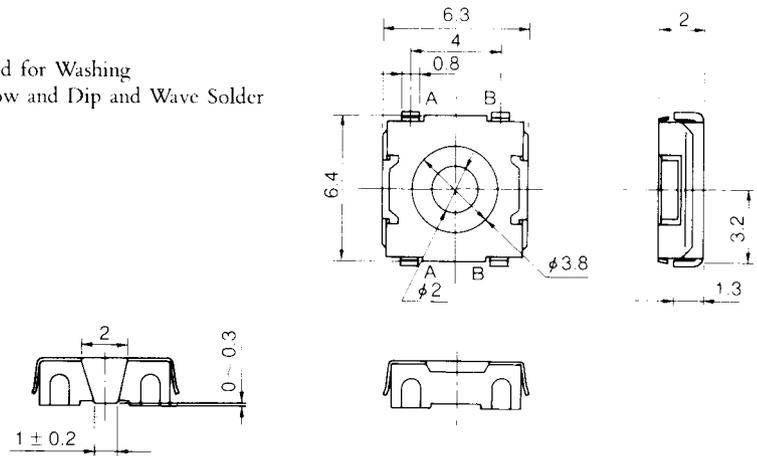
| | |
|------------------|-------------------|
| Operating Force: | 130 \pm 40gf |
| Push Stroke: | 0.25 \pm 0.1 mm |

ENDURANCE

| | |
|------------------------|------------------|
| Operating Life: | 100,000 min |
| Operating Temperature: | - 20°C to + 70°C |

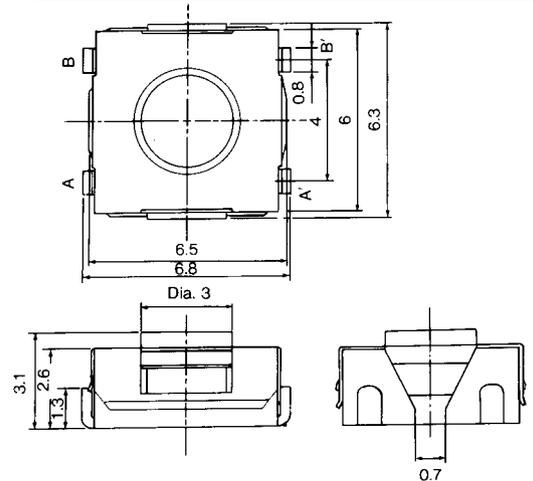
QFV, QFU (With Earth)

Sealed for Washing
Reflow and Dip and Wave Solder



PH (With Earth)

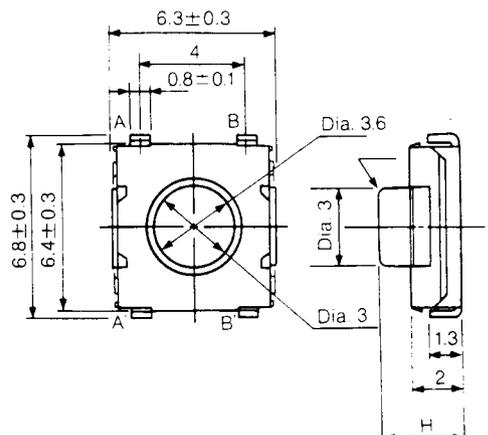
Sealed for Washing
Reflow Solder Only



QH

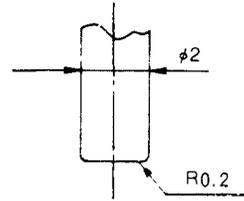
Not Sealed for Washing
Reflow Solder Only

| H | ORDER CODE |
|--------|------------|
| 2 mm | 02 |
| 2.5 mm | 25 |
| 3.1 mm | 03 |



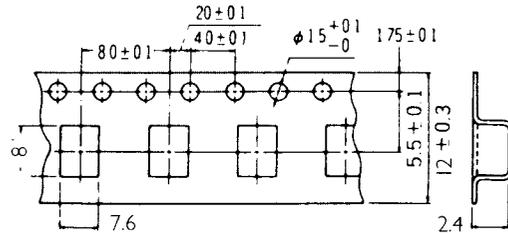
ACTUATOR KNOB FOR QFV, QFU TYPE

All dimensions are nominal and in 'mm' unless otherwise stated.
Do not scale.



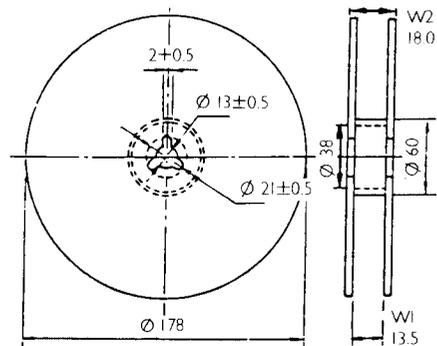
PACKAGING (TAPE)

To meet EIA 481
IEC 286 PT3



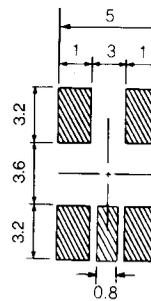
PACKAGING REEL

Reel Qty
500 pcs



RECOMENDED FOOTPRINT

Optional centre pad for
carthed types



Not To Scale

HOW TO ORDER

| QF | U | 02 | K |
|----------------|---|--|--------------------|
| SWITCH TYPE | CASE EARTH | SWITCH HEIGHT | OPERATING FORCE |
| QF PH QH | V = No Earth Terminal U = With Earth Terminals | 02 - mm Available QF, QH 25 - mm Available QH 03 - mm Available PH, QH | K = 130 gf nominal |

USER GUIDE NOTES

STANDARD SOLDERING METHOD

FLOW SOLDERING

| | ITEM | CONDITION |
|-------------------|------------------|--|
| Soldering Process | Application Flux | K322V (by Tamura) Specific gravity : 0.84 Time : 2 ± 0.5 sec Temperature : normal temperature Flux method : Form flux |
| | Pre-heat | 100 - 120°C, 60 sec |
| | Soldering | Temperature : $20 \pm 5^\circ\text{C}$ Time : 6 sec max |
| Cleaning Process | Cleaning | Fleon TES (by Mitsui) Liquid Temperature : $42 \pm 2^\circ\text{C}$ Time : 2 minutes max Cleaning method : Only dip in a liquid |

NOTE:

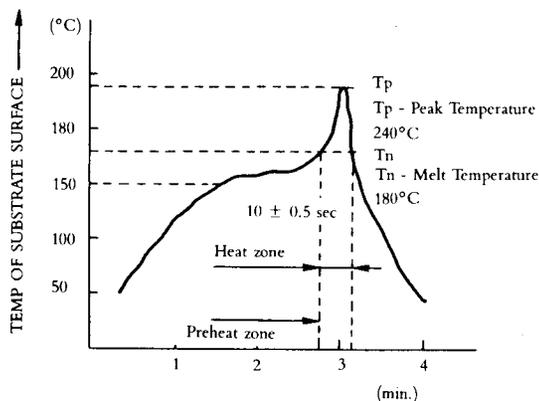
- Put the switch into the pre-heat oven no longer than 10 seconds after flux process.
- Cleaning should be done after the temperature of the switch returns to normal.

* Please discuss other solder methods with Citec Technical Sales.

REFLOW SOLDERING

| ITEM | CONDITION |
|-----------|---|
| Pre-heat | Set the surface of Substrate at 180°C in 2.5 ± 0.3 minutes after putting into the pre-heat or chamber oven. |
| Soldering | Set the surface of Substrate at 240°C in 10 ± 0.5 seconds after putting into soldering oven. |

PROFILE OF SOLDERING (REFLOW SOLDER)



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