

SELECTING A SOLDERING TIP

It is very important to choose the correct soldering tip. A suitable soldering tip can make the work more efficient and increase the durability of the tip. The size of the soldering tip is directly related to the heat capacity. For continuous soldering, the larger the soldering tip is used, the smaller the temperature drop. In addition, because of the higher heat capacity of the large soldering tip and the relatively low temperature during soldering, the soldering tip is less susceptible to oxidation and extends its service life. In general, the selection of soldering tip shall not affect the adjacent components. Selecting the geometry that is in full contact with the soldered joints can improve the soldering efficiency.

Tip type	I type (Pointed)	B type (Conical)	D type (Slot-type)	C type (horseshoe type)	K type (knife-type)
Content					
Features	Soldering tip is pointed	B-type soldering tip has no directionality, and the entire front end of the soldering tip can be soldered.	Soldering with the slotted tip;	Soldering with the beveled portion of the soldering tip, suitable for soldering in need of a large amount of solder.	Use the knife-shaped part to solder, Vertical or drag soldering is allowed belonging to multi-purpose soldering tip
Applications	Suitable for fine soldering, or when the soldering space is narrow, and also capable of correcting the solder bridge produced when the chip is soldered.	Suitable for general soldering. Regardless of the size of the soldered joints, B-type soldering tip can be used	Suitable for soldering with a large amount of solder, such as soldering conditions with a large soldering area, thick terminals and large soldered joints	The application range of the C-type soldering tip is similar to that of the D-type soldering tip. For example, it is used in case of large soldering area, thick terminal, and large soldered joints..	Used for soldering SOJ, PLCC, SOP, QFP, power source, earth element, modified tin bridge, and connector, etc.
Illustrations					

Use and maintenance of the soldering tip

- When the new tip is used for the first time, set 250~280°C to protect the soldering tip with solder.
- Select an appropriate soldering tip based on the soldered joint size.
- To prevent the soldering tip from oxidation, a layer of fresh solder should be applied before returning to the soldering iron stand.
- The cleaning sponge should not have too much water, so that the soldering tip can be cleaned well, and can be prevented from being cooled rapidly. If dry cleaning sponge is used, the soldering tip will be damaged and the solder can not be applied.
- After the soldering tip is oxidized due to improper use, do not polish the surface coating by sanding. Use metal filaments or a reactivation paste to clean the soldering tip at low temperature (250-280 °C).
- Do not apply gravity to the soldering tip during soldering and avoid using tin on the same position.
- Try to solder at low temperature. Generally, the soldering temperature is controlled at 320~380 °C. If you need to set high temperature to solder, please analyze whether the soldering station and soldering tip are matched.

Steps for removing the oxidation on the soldering tip



Per the diameter of Soldering Pad

D ≤ 1mm
Soldering Station Power : 60-120W
Soldering Method: Point Soldering
Recommended Model: B / J / 0.8D / 1.2D / 0.8C / 1C / SK / K

D = 1-2mm
Soldering Station Power : 60-120W
Soldering Method: Point Soldering
Recommended Model: B / J / 1.2D / 1.6D / 2C / SK / K

D = 2-5mm
Soldering Station Power : 90-150W
Soldering Method: Point Soldering
Recommended Model: 2.4D / 3.2D / 4.2D / 3C / 4C / 5C / K

D = 5-8mm
Soldering Station Power : 150-300W
Soldering Method: Point Soldering
Recommended Model: D / 6D / 8D / 5C / 6C / 8C

D ≥ 8mm
Soldering Station Power : 150-300W
Soldering Method: Point Soldering
Recommended Model: D / 10D / 15D / 8C / 10C / 15C

根据器件类型

DIP
Soldering Station Power : 90-120W
Soldering Method: Point Soldering / Drag Soldering
Recommended Model: (Point Soldering) B / 1.2D / 1.6D / 2.4D / 2C (Drag Soldering) K / SK / 3C / 4C /

QFP
Soldering Station Power : 90-120W
Soldering Method: Point Soldering / Drag Soldering
Recommended Model: (Point Soldering) B / 0.8D / 1.2D / J / 0.8C / (Drag Soldering) K / SK / 2C / 3C / 4C

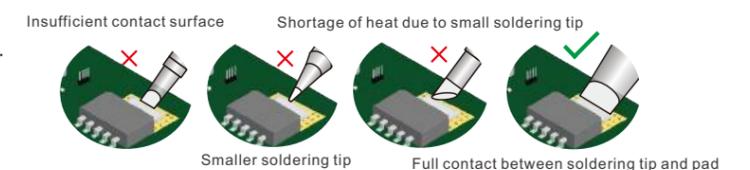
SOP
Soldering Station Power : 90-120W
Soldering Method: Point Soldering / Drag Soldering
Recommended Model: (Point Soldering) B / 0.8D / 1.2D / J / 0.8C (Drag Soldering) K / SK / 2C / 3C / 4C

MOS管
Soldering Station Power : 90-120W
Soldering Method: Point Soldering
Recommended Model: (Point Soldering) K / 3.2D / 4.2D / 4C / 5C

Specifications: **0603** Recommended Model: B / 0.8D / 1.2D / J / 0.8C / 1C
Specifications: **0402** Recommended Model: B / I / 0.8D / 0.8C / J
Specifications: **0201** Recommended Model: I / J

Soldering Station Power : 60-120W
Soldering Method: Point Soldering

Cautions:
Soldering tips are not subject to high temperature and great force. High temperature will make the flux volatilize and will decline the quality of the solder joint. The size of soldering tips shall be close to that of soldering pad so that the soldering tip can fully contact the pad. Soldering tips should be large rather than small, and short rather than long if possible.



▲ QUICK TS1200 Replaceable Tips

Conical Type	TSS02-I	TSS02-I-02	TSS02-B	TSS02-2B	TSS02-J-01
C Type	TSS02-0.8C	TSS02-1C	TSS02-2C	TSS02-3C	TSS02-4C
D Type	TSS02-0.8D	TSS02-1.2D	TSS02-1.6D	TSS02-2.4D	TSS02-3.2D
	TSS02-4.2D	TSS02-6.5D	TSS02-10D-01	TSS02-20D-01	TSS02-1.6H-01
K Type	TSS02-SK	TSS02-K	TSS02-4.2DK-01		

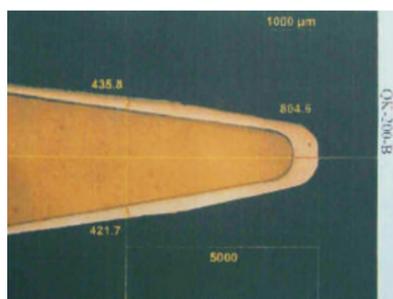
▲ QUICK TS1100 236 969 967 375A+375B+3104 Series Replaceable Tips

Conical Type	960-I	960-B	960-LB	960-2B	960-J
C Type	960-0.8C	960-1C	960-2C	960-3C	960-4C
D Type	960-0.8D	960-1.2D	960-1.6D	960-2.4D	960-3.2D
K Type	960-SK	960-K			

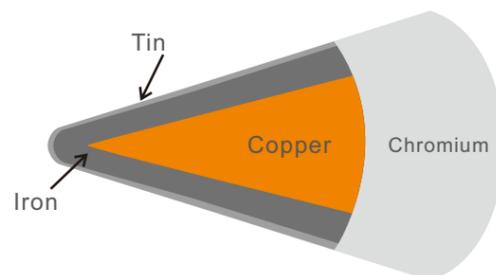
▲ QUICK303D Replaceable Tips

Conical Type	305-I	305-B	305-LB	305-2B	
C Type	305-1C	305-2C	305-3C	305-4C	305-5C
D Type	305-0.8D	305-1.2D	305-1.6D	305-2.4D	305-3.2D
K Type	305-SK	305-K	305-LK		

▲ Sectional View



- Copper- heat conductor, main component
- Iron – anti-corrosion, key to tip lifetime.
- Chromium - tin free material, prevent tin climbing.
- Tin - prevent tip oxidation.



▲ QUICK1300 Series Replaceable Tips

C Type	503-4C-01		503-6C		503-10C	
				503-15D-01		
D Type	503-6D		503-10D-01		503-15D	
	503-6DU-01		503-10DU-01		503-6DV2-01	
K Type	503-K-01		503-K-02			

▲ QUICK TS2300 205 3205 376D-150 Replaceable Tips

Conical Type	500-B		500-B-01		500-2B	
C Type	500-3C		500-4C		500-5C	
	500-6C		500-8C			
D Type	500-3.5D		500-5D		500-8D	
				500-SK		
K Type	500-SK		500-K		500-4DK	

▲ QUICK TS2200 203H 503 504 203D 376D Replaceable Tips

Conical Type	200-I		200-B		200-LB		200-2B		200-J	
C Type	200-0.8C		200-1C		200-2C		200-3C		200-4C	
						200-SK		200-K		200-LK
D Type	200-0.8D		200-1.2D		200-1.6D		200-2.4D		200-3.2D	
K Type	200-SK		200-K		200-LK					

▲ QUICK3202 713 Replaceable Tips

Conical Type	200G-I		200G-B		200G-LB		200G-2B		200G-J		
C Type	200G-0.8C		200G-1C		200G-2C		200G-3C		200G-4C		
						200G-SK		200G-K			
D Type	200G-0.8D		200G-1.2D		200G-1.6D		200G-2.4D		200G-3.2D		
K Type	200G-SK		200G-K								