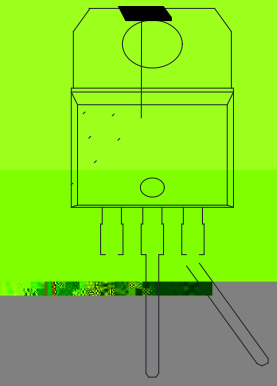
Table of contents

1. Introduction

This application note provides assembly instructions for JJM thyristor

When bending the leads laterally, as shown in Figure 3, leads can be bent as near to the trim as required but allow an adequate length of minimum 1mm from the trim to the start of a bend radius for bending. The angle must be ≤ 30 °.



Tightening torque requirements

Please use torque wrench, torque screwdriver and socket wrench for device installation. For different packages, control the mounting torque according to table 3.

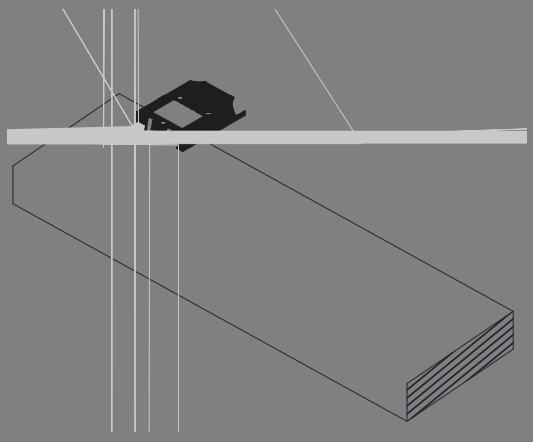
Table 3. Torque reference table

Package	Bolt Φ	Maximum torque	
		N·M	Kgf·cm
TO-220B, TO-220C, TO-220F	M3	0.6	6.12
TO-220A	M3	0.8	8.16
TO-247J	M3	1.0	10.20
TO-3P, ITO-247	M3	1.4	14.28

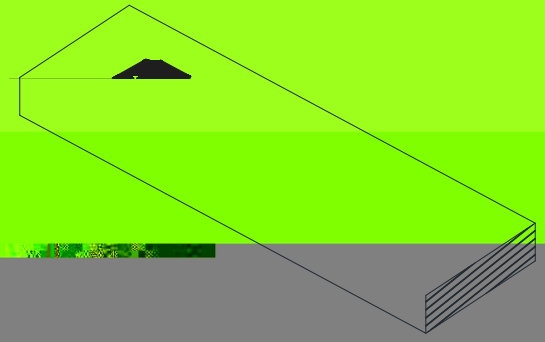
b. Direct mounting with spring clip

TO-247S has no locating hole. Users can use direct mounting with spring clip when installing heatsink. This method is applicable to all other through-hole packages.

Punch a suitable hole on the heatsink, and mount the device on the heatsink with 15N~50N spring clip, as shown in Figure 15.



Mount the device on the heatsink using 15N ~ 50N spring clip, as shown in Figure 16.



III. Other tips

a. Apply a smear of aluminum oxide compound between the contact surfaces to reduce the thermal resistance from mounting base to heatsink.

b. The device should be mounted to the heat sink first before being assembled on the PCB, and soldered. This can minimize the stress applied to the device leads.

4. Soldering

Maximum permissible at a distance from the body of > 2mm.

The soldering iron's maximum permissible power is 80W.Maximum permissible temperature is 260 and for a total contact time with the soldering iron of < 10s.Or Maximum permissible temperature is 350 nd for a total contact time with the soldering iron of < 3s.

Solder and flux

a. Solder: Pb:Sn ≤ 4:6; Low melting point solder(melting point:180), for example Sn63

b. Flux: Solderite

Reflow thermal profile, as shown in Figure 20.

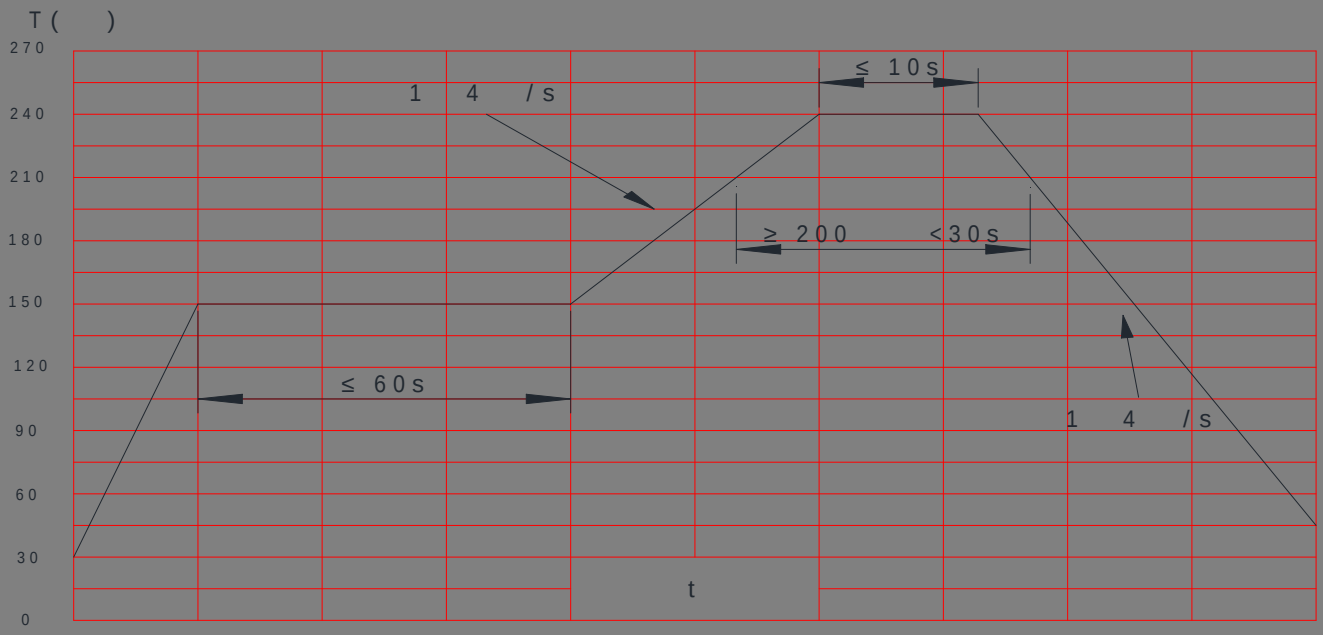
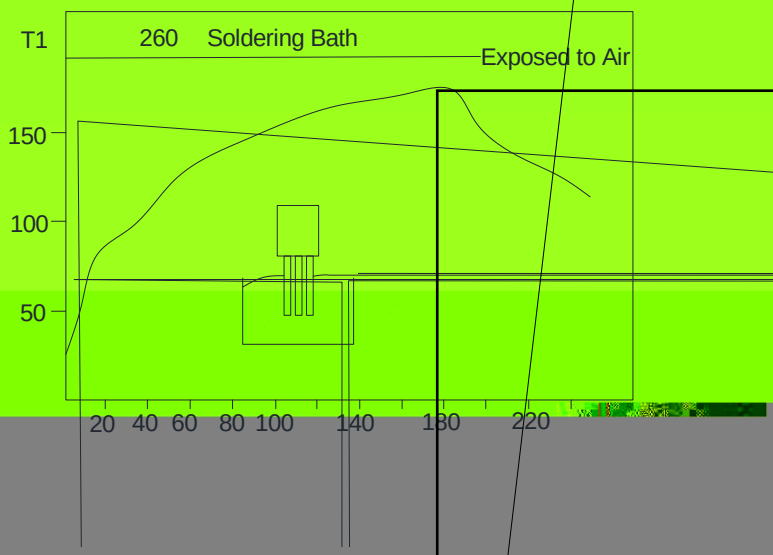


Fig. 20 Reflow thermal profile

Dip or wave soldering thermal profile, as shown in Figure 21.


T1
260
Soldering Bath
Exposed to Air
150
100
50
20
40
60
80
100
140
180
220