



Rules for Mounting and Soldering of Axial Leaded Diodes

ASSEMBLY INSTRUCTIONS

Semiconductor devices can be mounted in any position.

Excessive forces or temperatures applied to a diode may cause serious damage to the diode.

To avoid damage when soldering and mounting the following rules should be followed.

BENDING

During bending, the leads must be supported between body and bending point.

Axial forces on the body during the bending process must not exceed 20N (2 Kg).

Bending the leads through 90° is allowed at a distance specified in the Data Book depending on the case. Recommended distances are:

- 2 mm for DO-41 MINI CASE
- 2 mm for DO-41 CASE
- 2 mm for DO-15 CASE
- 3 mm for DO-201AD CASE
- 3 mm for DO-201AE CASE
- 4 mm for P-6 CASE

TWISTING:

Twisting the leads is allowed at any distance from the body if the lead is properly clamped between body and twisting point.

Without clamping, twisting the leads is only allowed at a distance of greater than 3 mm from the body.

STRAIGHTENING:

Straightening the leads is allowed if the applied pulling force in the axial direction does not exceed 20N (2 Kg) and the total duration is not longer than 5 seconds.

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SOLDERING INSTRUCTIONS

Protection against overheating is essential when a device is being soldered. It is recommended therefore, that connection terminals are left as long as possible, are soldered at the tip only and that any heat generated is quickly conducted away. The time during which the specified maximum permissible device junction temperature is exceeded during the soldering operation should be as short as possible.

Avoid any force on the body or leads during or just after soldering.

Do not correct the position of an already soldered device by pushing, pulling or twisting the body. Prevent fast cooling after soldering.

Preheat the printed-circuit board before soldering, up to a maximum of 100 °C.

The maximum soldering temperatures are shown below.

MAXIMUM SOLDERING TEMPERATURE

IRON SOLDERING			DIP OR WAVE SOLDERING			
Iron Temperature	Soldering distance from case	Maximum Allowable Soldering Time	Soldering Temperature	Soldering distance from the case		Maximum Allowable Soldering Time
				Vertical	Horizontal	
< 260 °C	2-5 mm	3 s	260 °C	> 1.5 mm	> 5 mm	3 s
350 °C	> 5 mm	3.5 s				