Littelfuse
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Application **Note**

Soldering Temperatures

Introduction

This application note applies to all Littelfuse products that are normally soldered to printed circuit boards (PCBs), including all reed switches. The primary materials making up these components are metal, glass, and thermoset plastic.

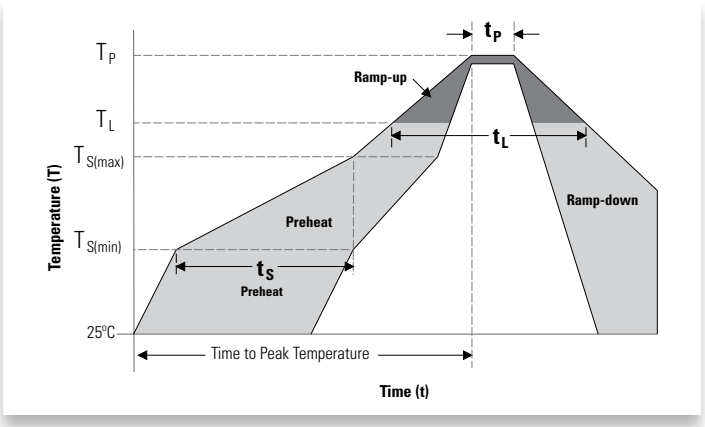
Recommendations

There are no unique requirements for soldering Littelfuse components compared to other common electrical components. The following general soldering recommendations apply to all except the DRS-DTH.

For the DRS-DTH, when soldering to the double-wire end of the reed switch, a heat sink should be used between the reed switch and the soldering iron. Reed switches other than the MDRR-DT and DRS-DTH may be tinned or soldered in a solder pot without preheating. The glass may be allowed to contact the liquid solder. The MDRRDT may be tinned or soldered in a solder pot as long as the glass does not contact the solder.

Soldering Parameters

Reflow Condition		Pb – free assembly
Pre Heat	**- Temperature Min ($T_{s(min)}$)**	150 °C
	- Temperature Max ($T_{s(max)}$)	200 °C
	- Time (Min to Max) (t_s)	60 – 180 seconds
Average Ramp-up Rate (Liquidus Temp (T_L) to peak)		3 °C/second max
$T_{S(max)}$ to T_L - Ramp-up Rate		3 °C/second max
Reflow	**- Temperature (T_L) (Liquidus)**	217 °C
	- Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_P)		260 °C max
Time within 5 °C of actual peak Temperature (t_p)		10 - 30 seconds max
Ramp-down Rate		6°C/second max
Time 25 °C to peak Temperature (T_P)		8 minutes max



Note: Based on IPC/JEDEC J-STD-020