

QuickSpec SMT Soldering Compliance Guide

IPC SMT Class Three Specifications

synopsis of select class 3 specifications please see current revision of IPC-A-610 for more details



Spec	DIM	Chip Component	Gull Wing	J Lead	MELF
Max Side Overhang	A	25% W or P*	25% W or 0.5mm	25% W***	25% W or P*
End Overhang	B	Not Permitted	***	***	Not Permitted
Min End Joint Width	C	75% W or P	75% W	75% W	50% W or P*
Min Side Joint Length	D	Wetting	3 W or 75% L****	150% W	75% R or 75% S*
Max Fillet Height	E	No Contact To Body	No Contact To Body	No Contact To Body	No Contact to Body
Min Fillet Height	F	G+ 25% H or **	G + T	G + T	G + 25% W or **
Solder Thickness	G	Wetting	Wetting	Wetting	Wetting
Min End Overlap		J Required			75% R

W = width of lead P = width of pad Wetting = evidence of wetting must be visible H = height of lead R = depth of termination S = pad depth T = thickness of lead

*whichever is less and does not violate minimum electrical clearance

**G + 1 mm whichever is less

***Does not violate minimum electrical clearance

****See spec for more details



ESD Made Easy

ANSI/ESD S20.20 is the electronics industry's benchmark for eliminating ESD related failures. It has three main principals and if you follow them you will eliminate the majority of your ESD related concerns.

1. The operator, the work, surface, and the ESD device must always be at the same electrical potential. As a result, ESDS devices must only be handled at a properly grounded dissipative work surface and the operator must also be grounded. The work surface must be free of static producing insulators.
2. Any ESDS devices must be stored or transported in a static shielding container, thus producing a "faraday cage".
3. If a necessary insulator is required in the ESD safe area, ionization must be used to eliminate the harmful static field.

