

Electrical Rules Check Report

Class	Document	Message
		Successful Compile for 24-12V_3A_TPS62933.PrjPcb

Design Rules Verification Report

Filename : D:\EE\BMS\24-12V_3A_TPS62933\Converter.PcbDoc

Warnings 0
Rule Violations 74

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.254mm) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ((All))	4
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=0.127mm) (Max=0.384mm) (Preferred=0.254mm) (InNetClass('All Nets'))	0
Width Constraint (Min=0.254mm) (Max=1.143mm) (Preferred=0.254mm) (InNetClass('Power'))	0
SMD To Plane Constraint (Distance=0mm) (All)	0
SMD Neck-Down Constraint (Percent=95%) (All)	1
Minimum Annular Ring (Minimum=0.13mm) (All)	58
Hole Size Constraint (Min=0.3mm) (Max=6.3mm) (All)	0
Hole To Hole Clearance (Gap=0.6mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All)	10
Silk To Solder Mask (Clearance=0.15mm) (IsPad),(All)	0
Silk to Silk (Clearance=0.127mm) (All),(All)	0
Net Antennae (Tolerance=0mm) (All)	0
Board Clearance Constraint (Gap=0mm) (All)	1
Height Constraint (Min=0mm) (Max=25.4mm) (Preferred=12.7mm) (All)	0
Total	74

Un-Routed Net Constraint ((All))	
Un-Routed Net Constraint: Net 12V Between Track (17.1mm,7.1mm)(18.1mm,7.1mm) on Top Layer And Pad J1-1(40mm,13.5mm) on Multi-Layer	
Un-Routed Net Constraint: Net 24V Between Pad J2-1(0.047mm,13.547mm) on Multi-Layer And Track (6.5mm,8.5mm)(6.7mm,8.7mm) on Top Layer	
Un-Routed Net Constraint: Net GND Between Pad J3-1(0mm,1.5mm) on Multi-Layer And Via (2.5mm,1mm) from Top Layer to Bottom Layer	
Un-Routed Net Constraint: Net GND Between Via (38mm,1mm) from Top Layer to Bottom Layer And Pad J4-1(40mm,1.5mm) on Multi-Layer	

SMD Neck-Down Constraint (Percent=95%) (All)	
SMD Neck-Down Constraint: Between Pad C6-2(35mm,8.45mm) on Top Layer And Track (30.398mm,12.152mm)(34.1mm,8.45mm) on Top Layer Relative Track Width: 112.06%	

Minimum Annular Ring (Minimum=0.13mm) (All)
Minimum Annular Ring: (0.1mm < 0.13mm) Via (37mm,1mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (37mm,2mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (37mm,3mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (37mm,4mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (38mm,1mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (38mm,2mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (38mm,3mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (38mm,4mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (4.5mm,1mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (4.5mm,2mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (5.5mm,1mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (5.5mm,2mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (6.5mm,1mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (6.5mm,2mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (7.5mm,1mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (7.5mm,2mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (8.5mm,1mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (8.5mm,2mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (9.5mm,1mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (9.5mm,2mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (9mm,13mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,
Minimum Annular Ring: (0.1mm < 0.13mm) Via (9mm,14mm) from Top Layer to Bottom Layer (Annular Ring=0.1mm) On (Top Layer,

Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All)
Minimum Solder Mask Sliver Constraint: (0.124mm < 0.254mm) Between Pad B1-1(11mm,5.5mm) on Top Layer And Pad B1-2(11mm,5mm) on Top Layer [Top Solder] Mask Sliver [0.124mm
Minimum Solder Mask Sliver Constraint: (0.124mm < 0.254mm) Between Pad B1-2(11mm,5mm) on Top Layer And Pad B1-3(11mm,4.5mm) on Top Layer [Top Solder] Mask Sliver [0.124mm
Minimum Solder Mask Sliver Constraint: (0.124mm < 0.254mm) Between Pad B1-3(11mm,4.5mm) on Top Layer And Pad B1-4(11mm,4mm) on Top Layer [Top Solder] Mask Sliver [0.124mm
Minimum Solder Mask Sliver Constraint: (0.124mm < 0.254mm) Between Pad B1-5(12.676mm,4mm) on Top Layer And Pad B1-6(12.676mm,4.5mm) on Top Layer [Top Solder] Mask Sliver [0.124mm
Minimum Solder Mask Sliver Constraint: (0.175mm < 0.254mm) Between Pad B1-5(12.676mm,4mm) on Top Layer And Pad C1-2(13.4mm,3.2mm) on Top Layer [Top Solder] Mask Sliver [0.175mm
Minimum Solder Mask Sliver Constraint: (0.124mm < 0.254mm) Between Pad B1-6(12.676mm,4.5mm) on Top Layer And Pad B1-7(12.676mm,5mm) on Top Layer [Top Solder] Mask Sliver [0.124mm
Minimum Solder Mask Sliver Constraint: (0.124mm < 0.254mm) Between Pad B1-7(12.676mm,5mm) on Top Layer And Pad B1-8(12.676mm,5.5mm) on Top Layer [Top Solder] Mask Sliver [0.124mm
Minimum Solder Mask Sliver Constraint: (0.174mm < 0.254mm) Between Pad J4-1(40mm,1.5mm) on Multi-Layer And Via (38mm,1mm) from Top Layer to Bottom Layer [Top Solder] Mask Sliver [0.174mm] / [Bottom Solder
Minimum Solder Mask Sliver Constraint: (0.174mm < 0.254mm) Between Pad J4-1(40mm,1.5mm) on Multi-Layer And Via (38mm,2mm) from Top Layer to Bottom Layer [Top Solder] Mask Sliver [0.174mm] / [Bottom Solder
Minimum Solder Mask Sliver Constraint: (0.174mm < 0.254mm) Between Pad J4-1(40mm,1.5mm) on Multi-Layer And Via (38mm,3mm) from Top Layer to Bottom Layer [Top Solder] Mask Sliver [0.174mm] / [Bottom Solder

Board Clearance Constraint (Gap=0mm) (All)
Board Outline Clearance(Outline Edge): (0.095mm < 0.3mm) Between Board Edge And Text "12V" (37.797mm,12.203mm) on Top Overlay