External VCC input

J4
1 VCC
2 RTN
EXT BIAS

External components

1729144
1 2 3 VccPri 4 SGND
J5
380V — F2 4A 400VDC — 380VAF
C15 10uF 450V
C16 10uF 450V
C17 10uF 450V
DC-

To Primary A-B Fets
T1-F 1 P1
T1 S1 S3
33T 3T
1 4
T1-S 1 P2
To Primary C-D Fets

C22 3300pF 250V
C23 3300pF 250V
D3 5A 100V
L3 47uH
12V C28 22uF 16V C1210
RTN-

C13 3300pF 250V
C14 3300pF 250V
D4 5A 100V
L4 47uH
12V C29 22uF 16V C1210
RTN-

BTSEN
R19 12K R0603
t° RT2 47K NTC 0603-0402
RTN

VRSEN
R16 18.2K R0603
R14 18.2K R0603
VRSEN

Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 BSC028N06NS
Q7-D TP3
Q7-G TP4
Q8-D TP6
Q8-G TP5

U1 U2 U3 U4 U5 2EDN7524G
VCC1 ENA ENB VCC1
SRA INA OUTA UG1/UG2/UG3/UG4/UG5
VSS VDD VCC1
SRB INB OUTB BG1/BG2/BG3/BG4/BG5
pad
C30 C31 C32 C33 C34 C35 C36 C37 C38 C39 100pF 100V
C1 C2 C3 C4 C5 0.22uF
RTN-

L1 1.8uH
L2 1.8uH
R2 10
R5 10
C6 100pF 100V
C7 100pF 100V
C8 100uF 16V C1210
C41 C42 C43 100uF 16V C1210
RTN-
12V
J1 Jack
J2 Jack
R4 1K
C24 10uF 16V C1206
C9 470uF 16V
C10 470uF 16V
RTN

C18 3300pF 250V C2220
SGND
C21 3300pF 250V C2220

J12
Primary
380VAF P2 P1 380VAF DC- VccPri OUTC OUTD OUTA OUTB VCS- VCS+ RTN VDD3V3
A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14
80mil spacing / 236mil spacing
Secondary
Full Bridge Board Connector

J9
VccPri DC- 380VAF VDD3V3 VCC RTN -5V
1 2 3 4 5 6 7
80mil spacing / 236mil spacing
Bias Board Connector

J3
12V 1 2 RTN
BTSEN 3 4 VDD3V3
NC VRREF 5 6 VCS+
TSEN 7 8 VCS-
SEC_CS+ 9 10 VRSEN
SEC_CS- 11 12 OUTB
SRA 13 14 OUTA
SRB 15 16 OUTD
NC EN 17 18 OUTC
RTN 19 20 VCC1
C26 0.1uF C0603
RTN
RTN TP1
XDPP1100 Control Board Connector

M1 M2 M3 M4

R10 N/U R1206
VCC D2 8A 40V
12V D7 8A 40V
C44 C45 C27 100uF 16V C1210
VCC1
RTN

Output DC Current Sense

C20 10uF 25V C0805
RT1 47K NTC 0603-0402
t° TSEN R18 12K R0603 C25 0.1uF C0603
RTN
NS1 RTN-RTNcs
NS2 RTN:RTNcs
etch-R1 Etch Shunt
RTN-cs
RTNcs
C11 4700pF C0603
R1 40.2K R0603
VCC1
R3 100 R0603
C12 1uF 25V C0603
R8 100 R0603
R9 40.2K R0603
U6 OPA140
R6 N/U R0603
R7 100 R0603
SEC_CS+
C19 0.1uF C0603
-5V
R13 100 R0603
SEC_CS-
C40 0.1uF C0603
RTN

Note: All resistors and caps are 0805 unless otherwise specified

PC Board (FAB)
P100080 B

Infineon Technologies Americas Corp.
101 N. Sepulveda Blvd. El Segundo, California 90245

Title	MAIN BOARD 1000W PSFB-CDR	Main Board 1000W PSFB-CDR
Size	Document Number	Rev B
Date: Friday, July 24, 2020	Sheet 1 of 1	