V Vin, 3A Synchronous Step-down DCDC Converter

FEATURES

REVISION HISTORY

DEVICE ORDER INFORMATION

ORDERABLE DEVICE	PACKAGING TYPE	STANDARD PACK QTY	PACKAGE MARKING	PINS	PACKAGE DESCRIPTION	MSL

PIN FUNCTIONS

NAME	PIN		PIN FUNCTION
	SOT563	SOT23-6	

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
Power Supply and Output						
Enable, Soft Start and Working Modes						
Power MOSFETs						
Feedback and Error Amplifier						
Current Limit						
Switching Frequency						
Soft Start Time						
Protection						

TYPICAL CHARACTERISTIC0

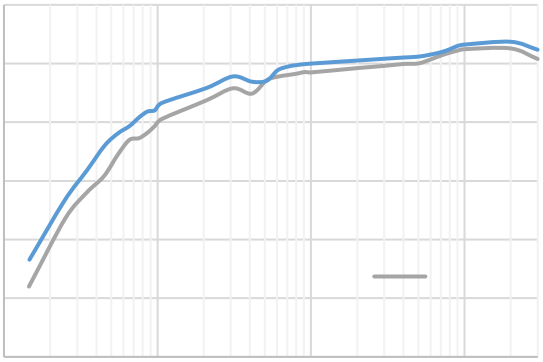


Figure 1. Efficiency vs Load Current(VIN=12V)

Figure 2. Line Regulation

Figure 3. Load Regulation

Figure 4. FB Voltage Vs. Temperature

Figure 5. UVLO Vs. Temperature

Figure 6. Quiescent Current Vs. Temperature

FUNCTIONAL BLOCK DIAGRAM

Input Capacitor Selection

Bootstrap Capacitor Selection

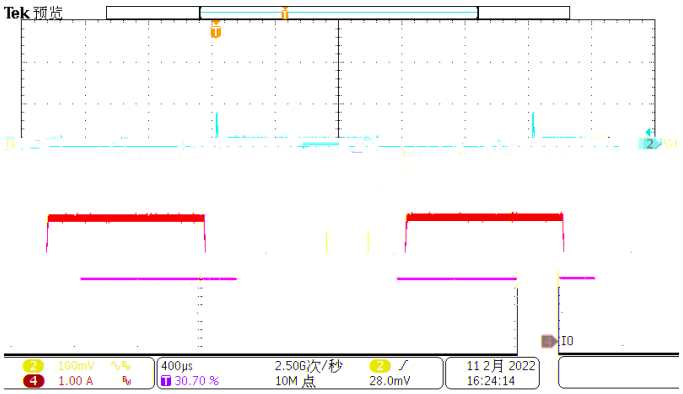
Inductor Selection

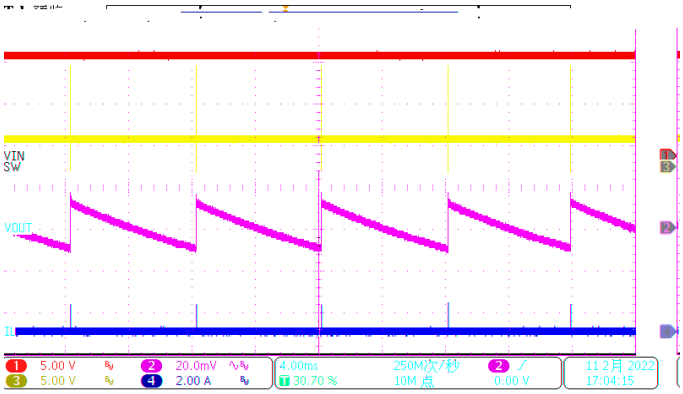
Table 1. Recommended Inductors

Part Number	L (uH)	DCR Max (mΩ)	Saturation Current/Heat Rating Current (A)	Size Max (LxWxH mm)	Vendor

Output Feedback Resistor Divider Selection

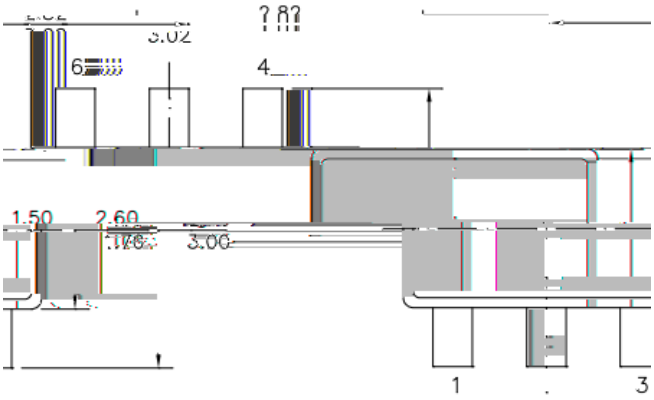
Application Waveforms

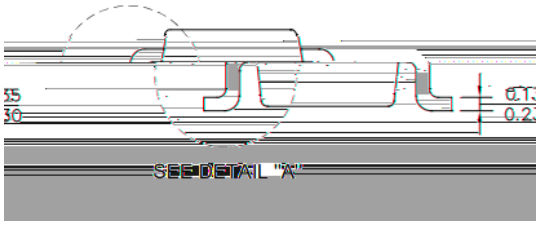


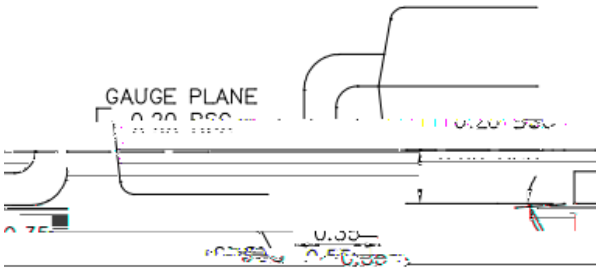


Layout Guideline

Thermal Considerations

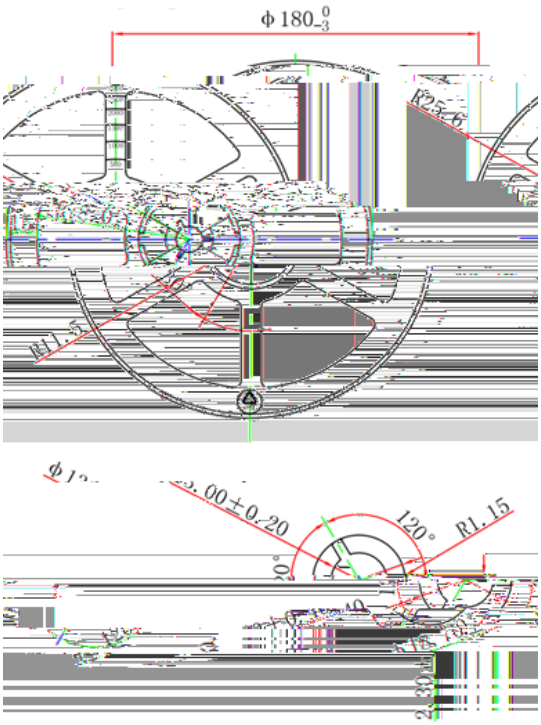


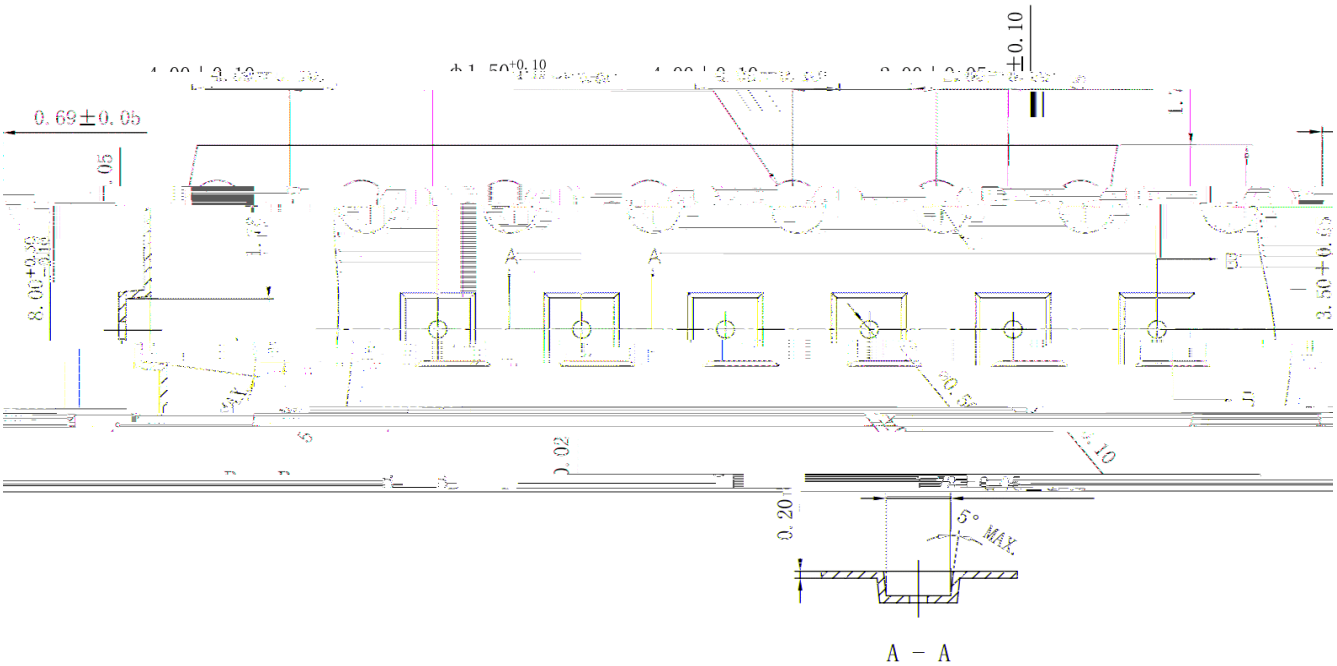




NOTE:

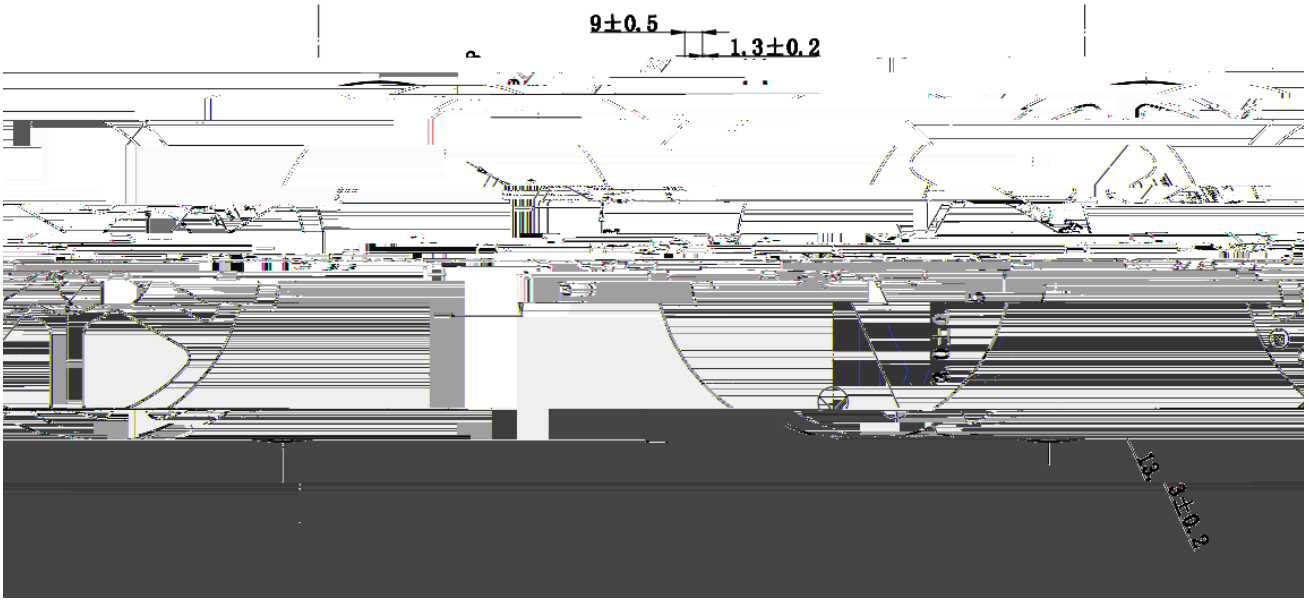
TAPE AND REEL INFORMATION

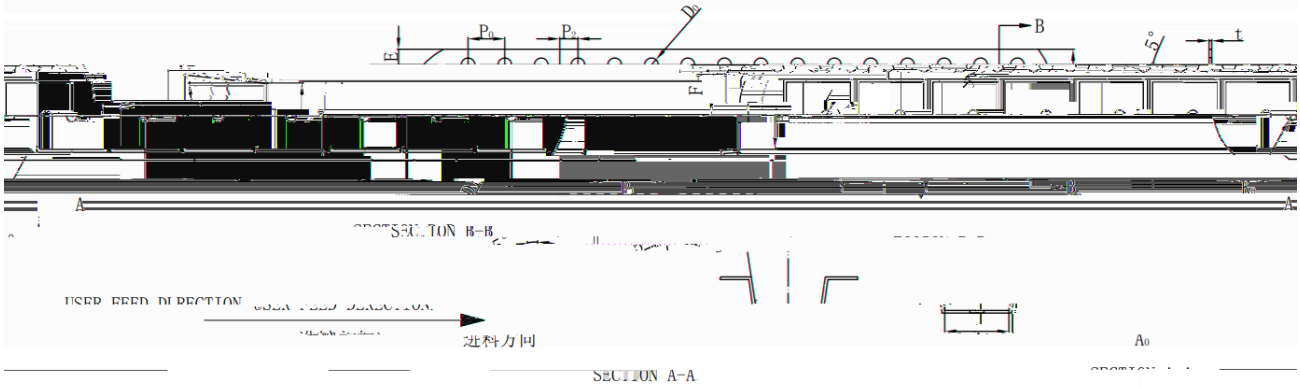




A − A

TAPE AND REEL INFORMATION



ITEM	W	A_0	B_0	K_0	F	E	D1	D_0	P_0	P_1	P_2	t
	30	3.15	3.25	1.28	1.65	3.45	—	—	3.90	3.90	1.95	0.20
NOM	8.00											
MIN												

MIN 7.