



**SCT2230D**

V Vin, 3A Synchronous Step-down DCDC Converter

FEATURES



# SCT2230D

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## REVISION HISTORY

## DEVICE ORDER INFORMATION

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

NAME	PIN		PIN FUNCTION
	SOT563	SOT23-6	

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## ELECTRICAL CHARACTERISTICS

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

TYPICAL CHARACTERISTICS

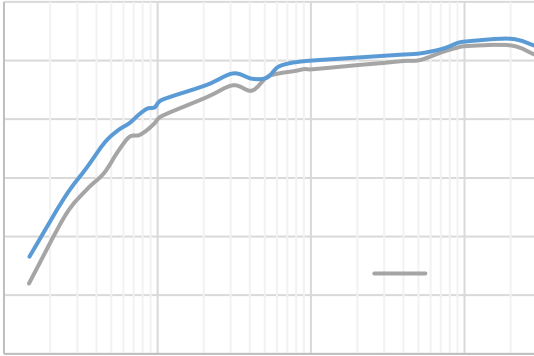


Figure 1. Efficiency vs Load Current(VIN=12V)

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

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## FUNCTIONAL BLOCK DIAGRAM









**Input Capacitor Selection**

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**Bootstrap Capacitor Selection**

**Inductor Selection**

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**Table 1. Recommended Inductors**

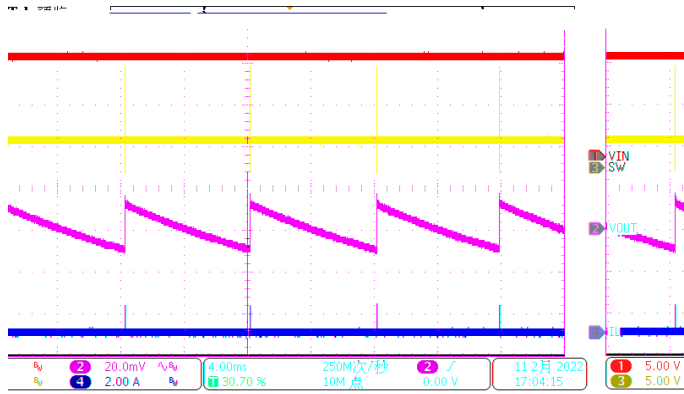
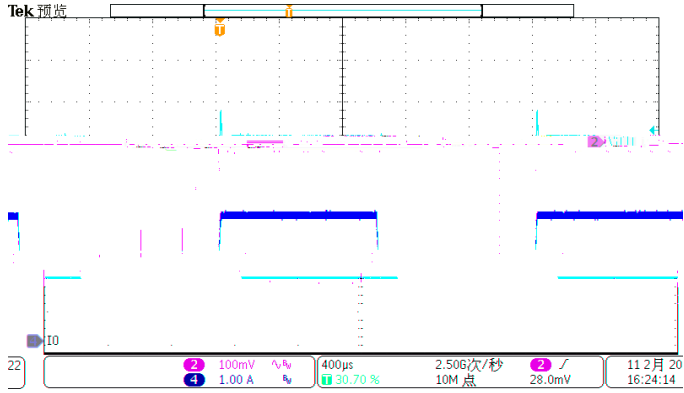
Part Number	L ( $\mu$ H)	DCR Max (m $\Omega$ )	Saturation Current/Heat Rating Current (A)	Size Max (LxWxH mm)	Vendor

## Output Feedback Resistor Divider Selection



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## Application Waveforms



**Layout Guideline**

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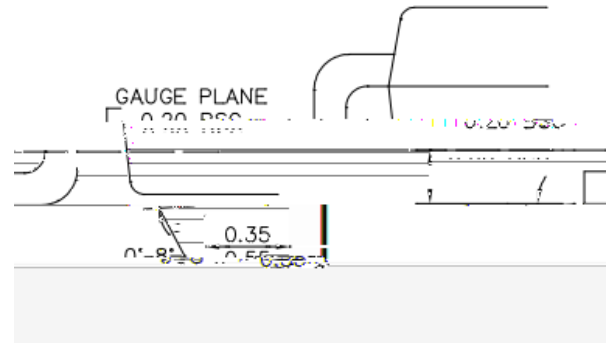
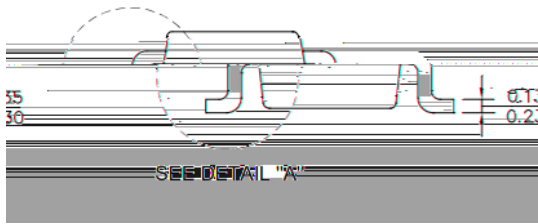
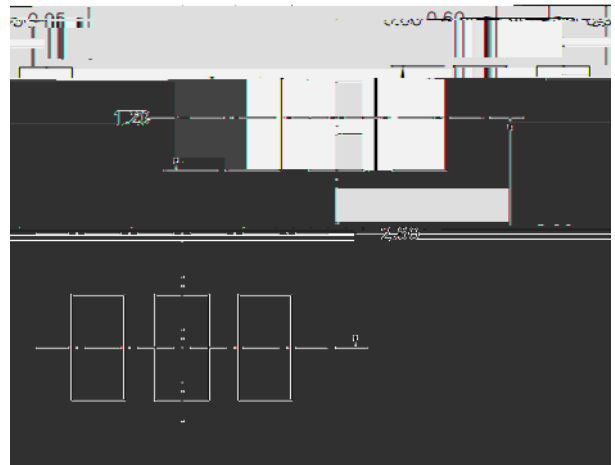
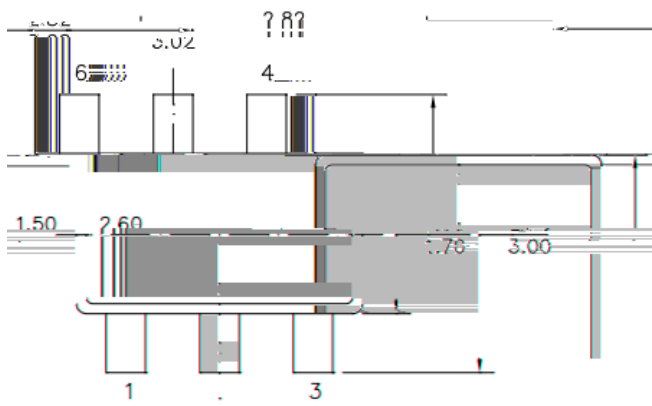
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## Thermal Considerations

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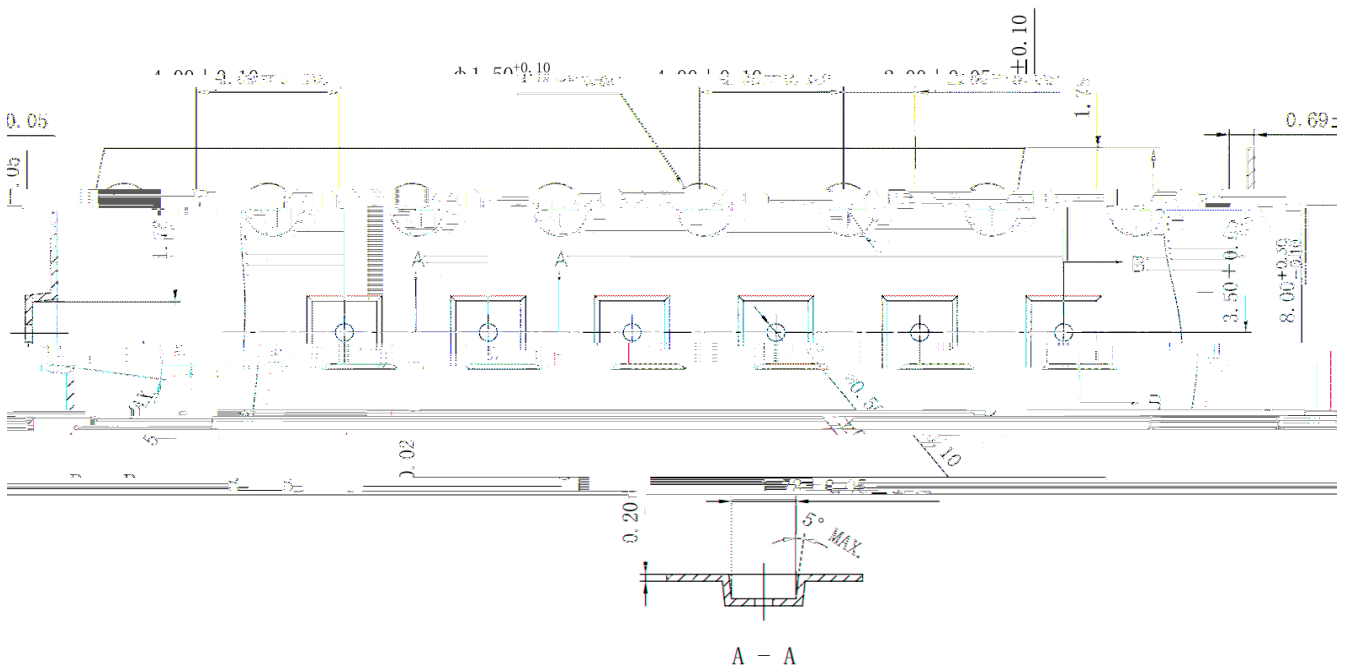
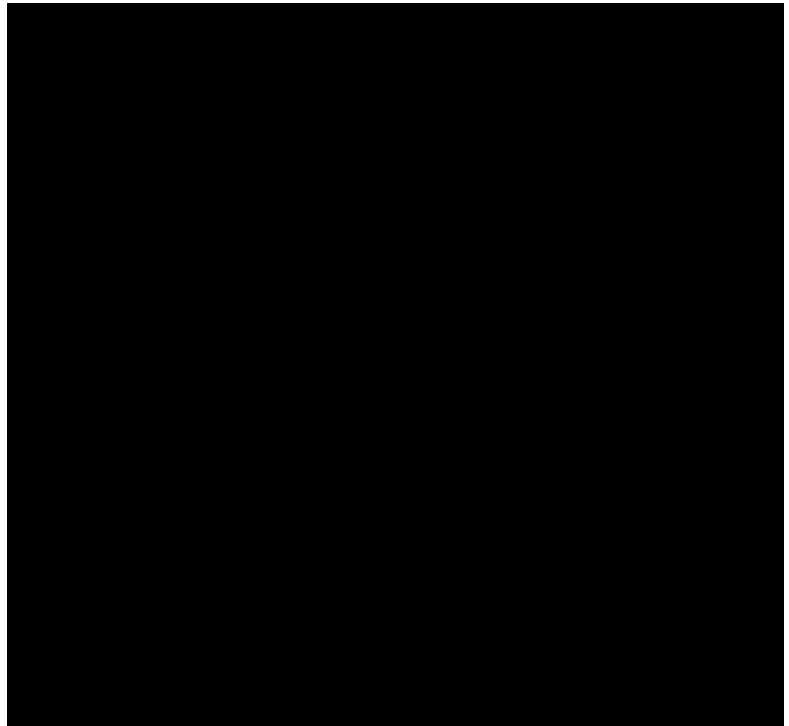
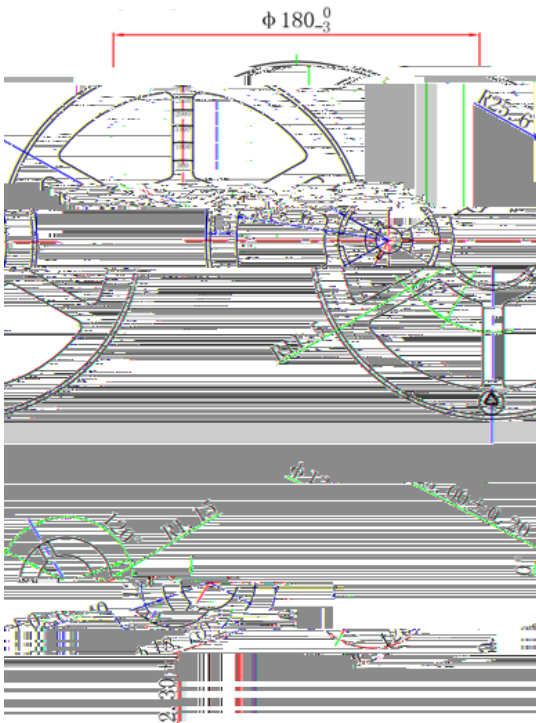


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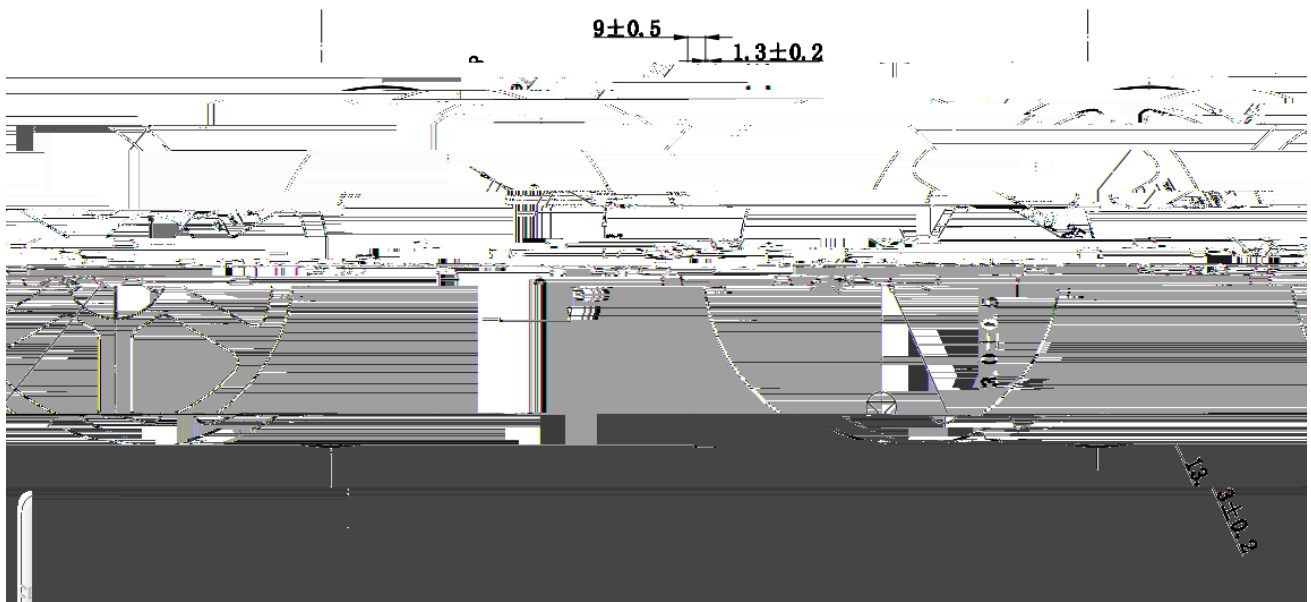
NOTE:

TAPE AND REEL INFORMATION

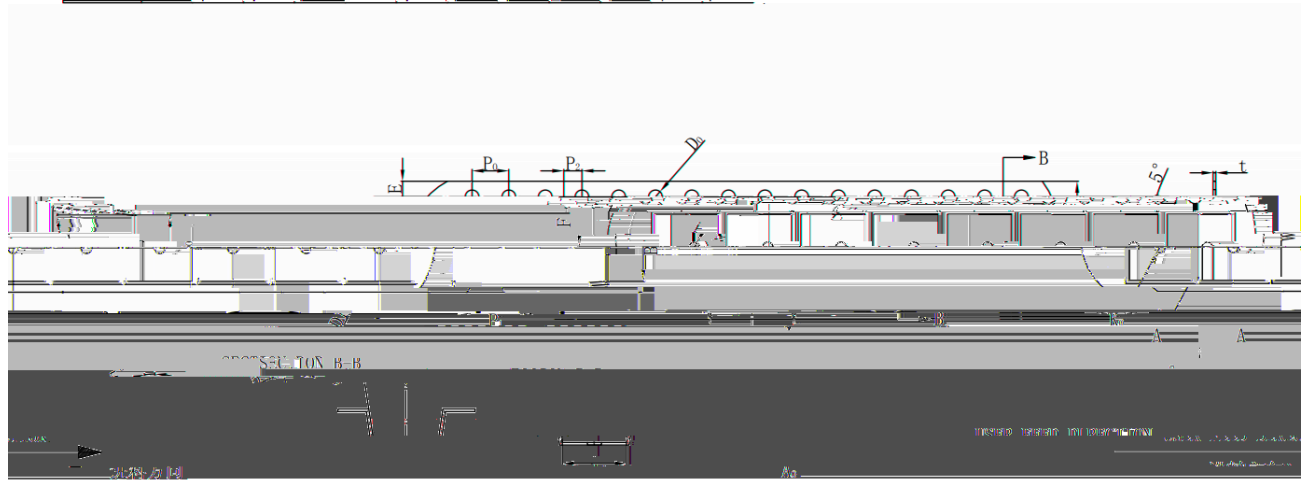


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## TAPE AND REEL INFORMATION



ITEM	W	Ao	Bo	Ko	E	E	D1	D2	P1	P2	P3	t	MIN	7.3
30	3.15	3.25	1.28	1.65	3.45	-	3.90	3.90	1.95	0.20				
MIN	8.00	3.25	3.30	3.35	3.40	3.45	3.50	3.55	3.60	3.65	3.70	3.75	3.80	3.85
MAX	8.00	3.25	3.30	3.35	3.40	3.45	3.50	3.55	3.60	3.65	3.70	3.75	3.80	3.85



SECTION A-A

SECTION B-B