

5.5V-100V Vin, 1.3A Peak Current Limit, High Efficiency Asynchronous Step-down DCDC Converter

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SCT2A00

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

DESCRIPTION	MIN	MAX	UNIT

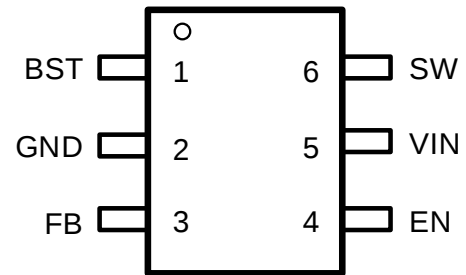


Figure 1. 6-Lead Plastic SOT23-6L

PARAMETER	DEFINITION	MIN	MAX	UNIT

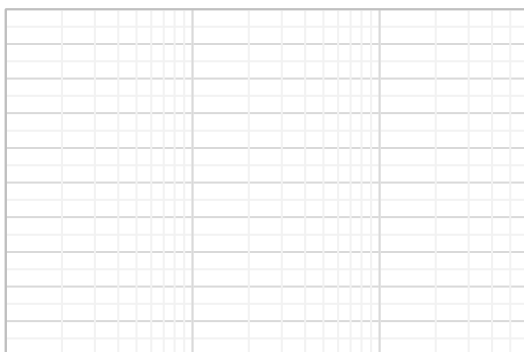
PARAMETER	DEFINITION	MIN	MAX	UNIT

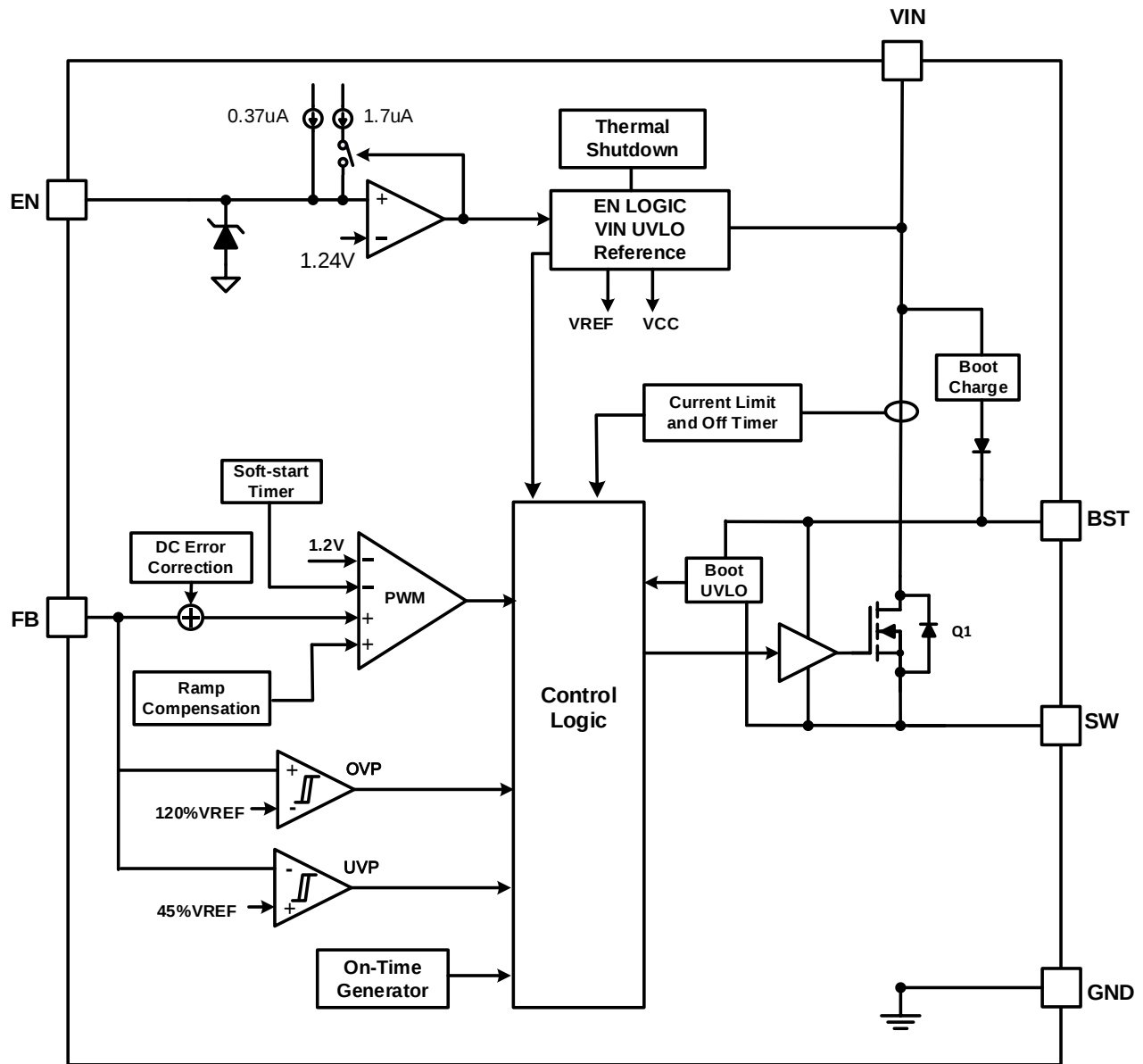
(1)
(2)

PARAMETER	THERMAL METRIC	SOT23-6L	UNIT

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SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
Power Supply						
Power MOSFETs						
Reference and Control Loop						
Enable and Soft-startup						
Switching Frequency Timing						
Current Limit and Over Current Protection						
Protection						

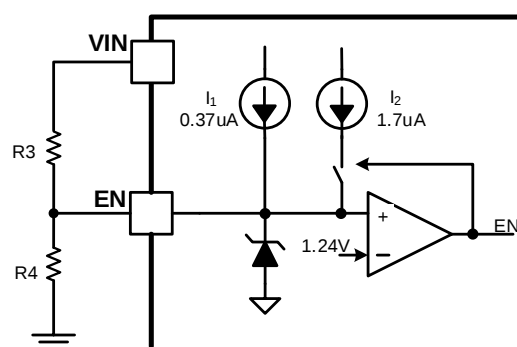




Overview

Constant On-Time Mode Control

Enable and Under Voltage Lockout Threshold



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Output Voltage

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Internal Soft-Start

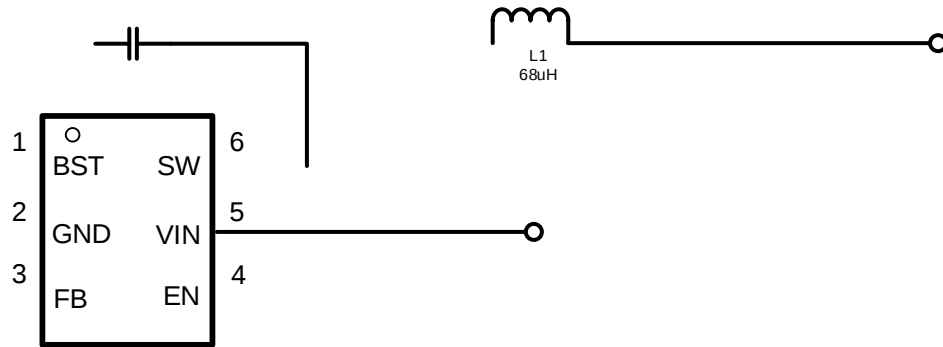
Bootstrap Voltage Regulator

Over Current Limit, Hiccup Mode and Under Voltage Protection

Over Voltage Protection

Thermal Shutdown

Typical Application



Design Parameters

Design Parameters	Example Value

Output Voltage

Table 1. R₁, R₂ Value for Common Output Voltage
(Room Temperature)

V _{OUT}	R ₁	R ₂

Under Voltage Lock-Out

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57<0056> q\$ Q MET 4.524.0160001 Teof* \$EQC B 7 02 F5 9.96 Tf 1 0 0 1 85.944 666.34 Tm 0 g 0 G [<0057>-10<004

Input Capacitor Selection

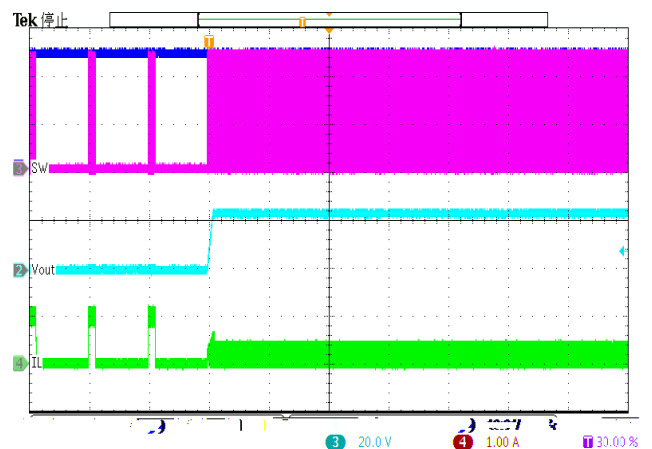
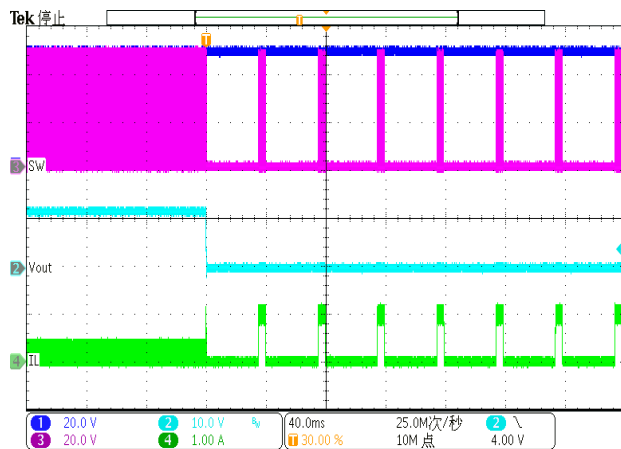
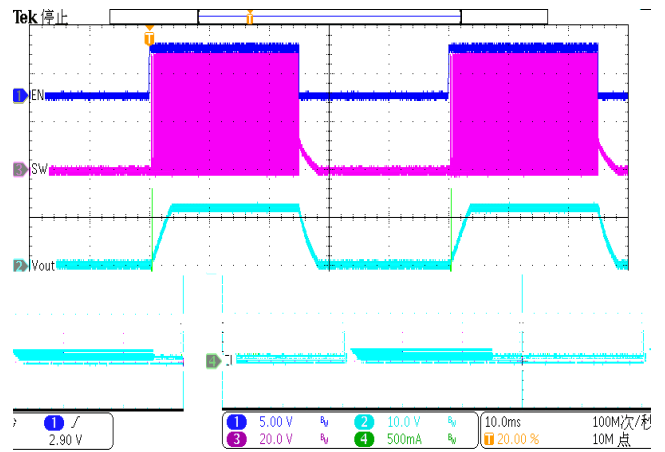
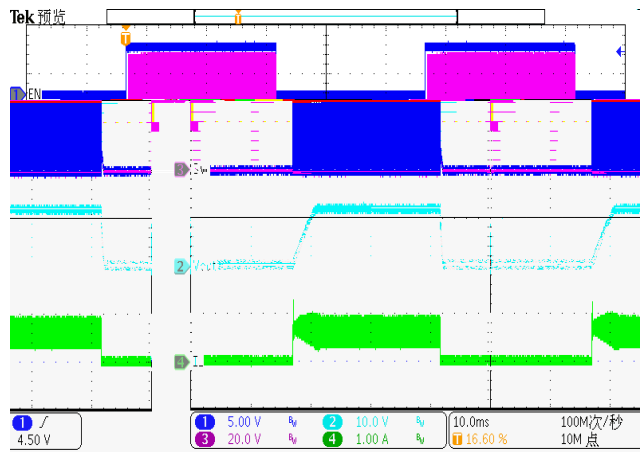
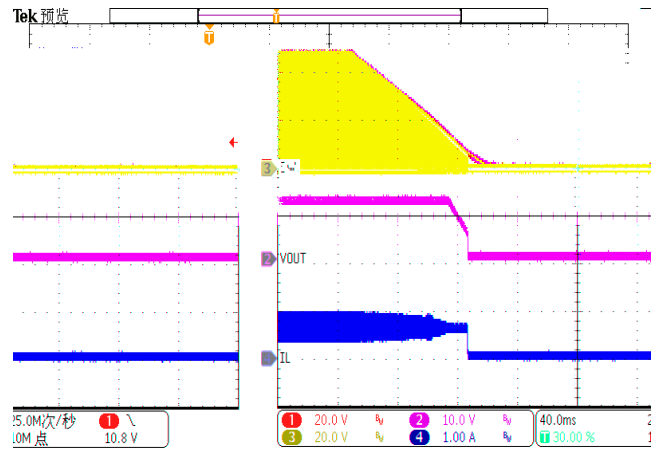
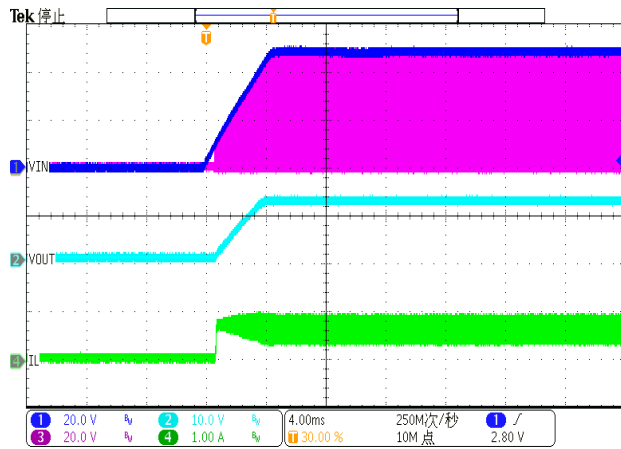
Output Capacitor Selection

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Table 2: Component List with Typical Output Voltage BOM list

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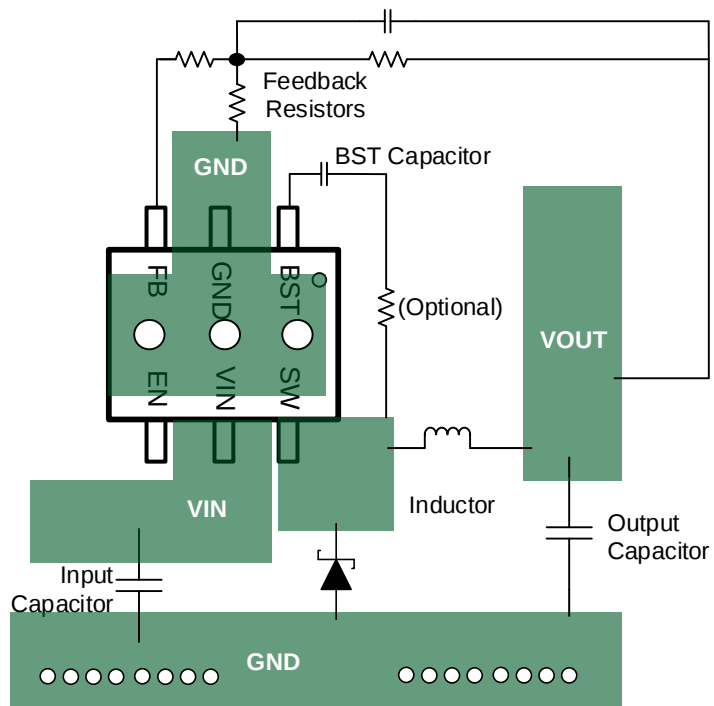
Application Waveforms

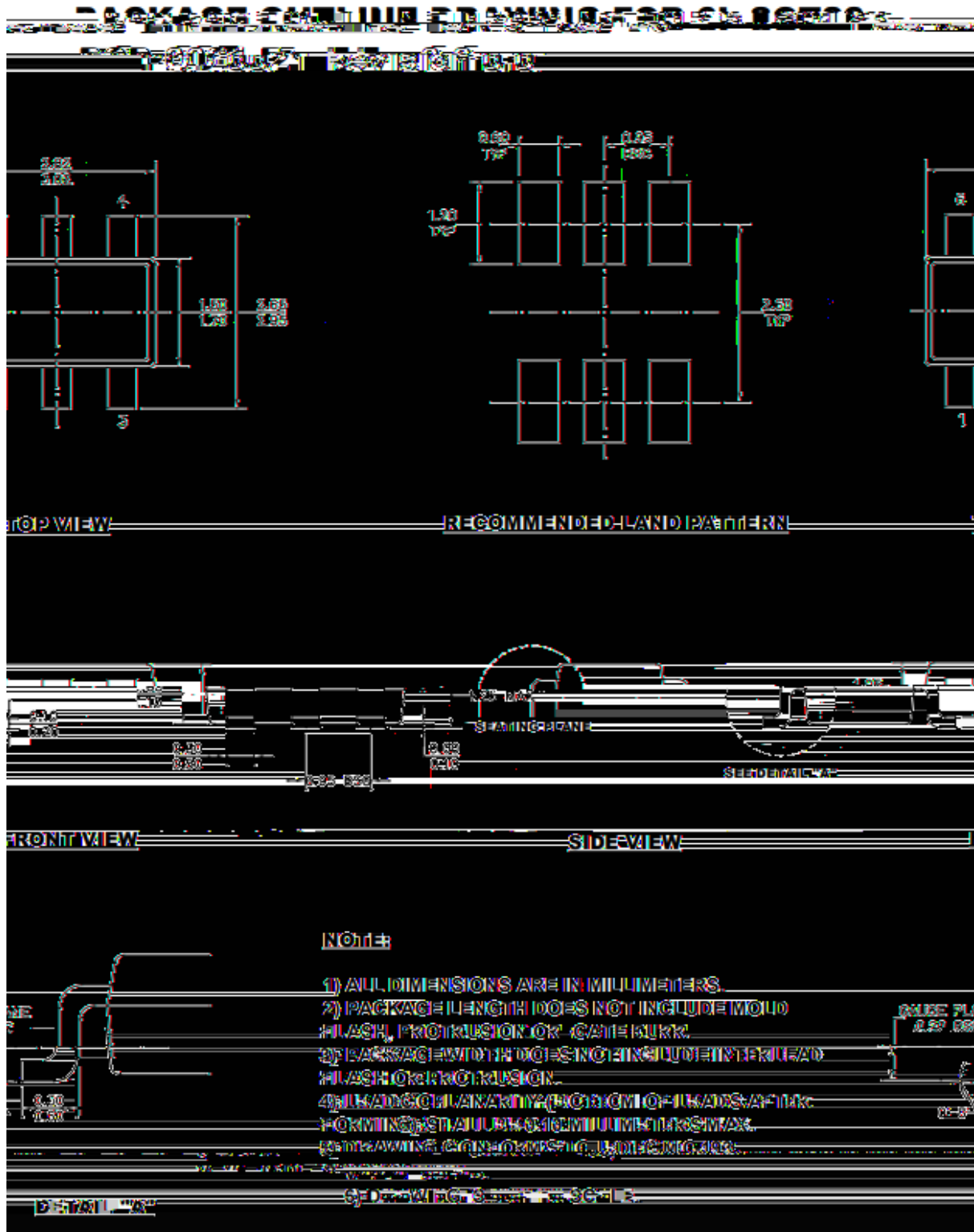


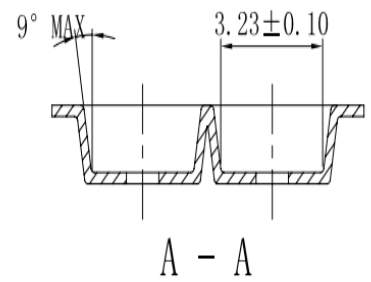
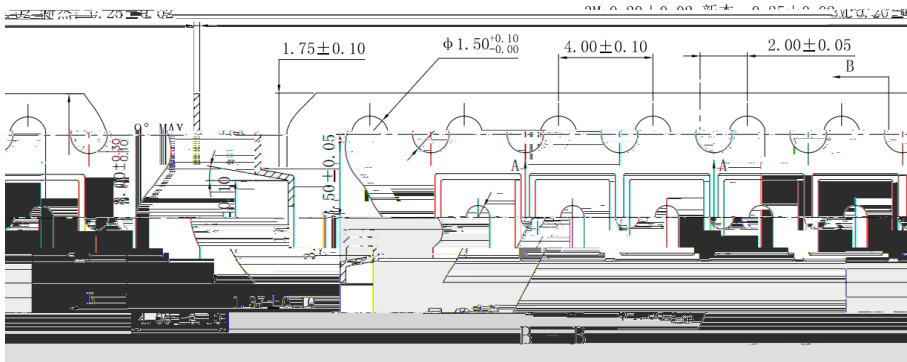
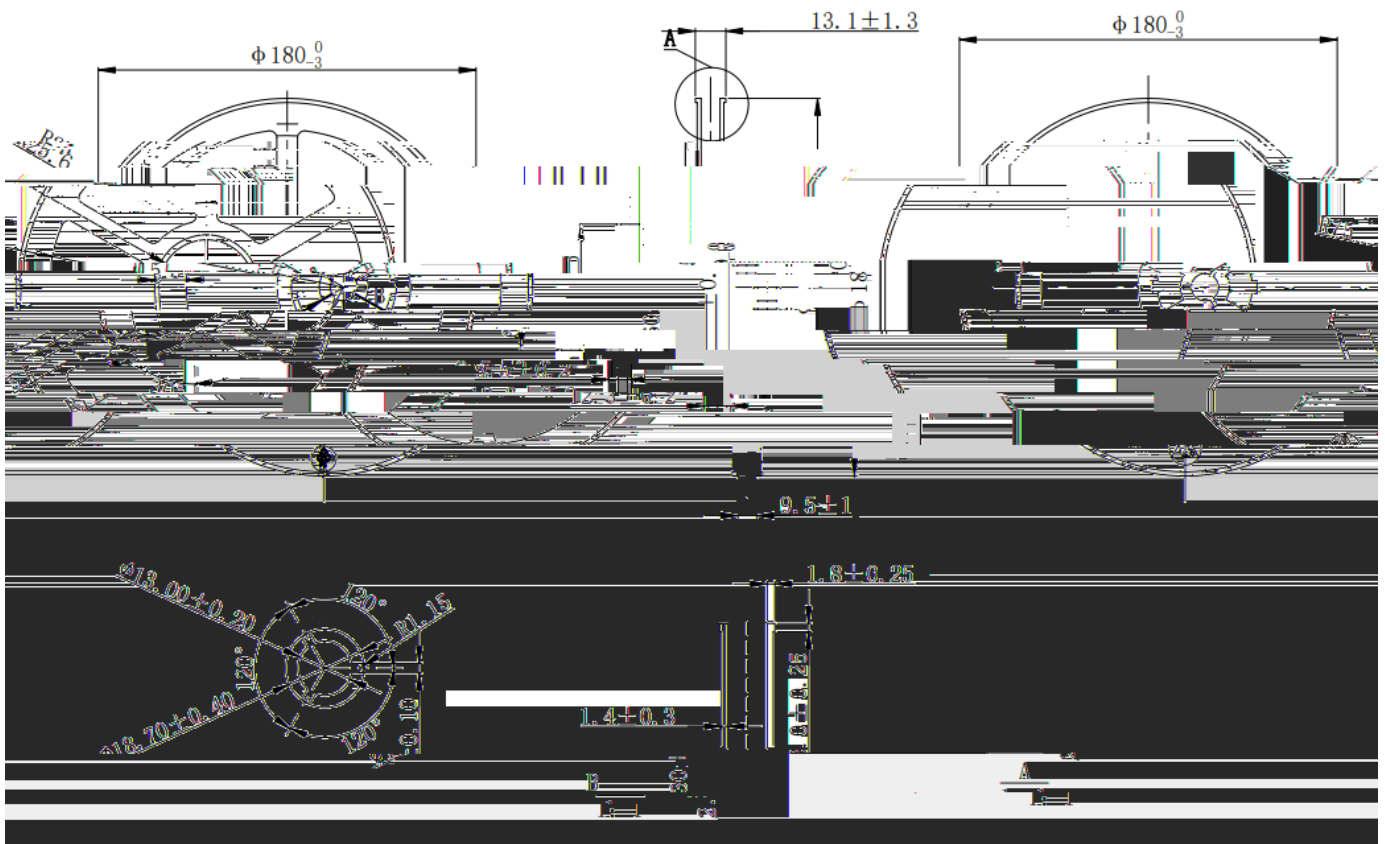
Application Waveforms(continued)

Layout Guideline

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- 2.
- 3.
- 4.
- 5.
- 6.







NOTICE: