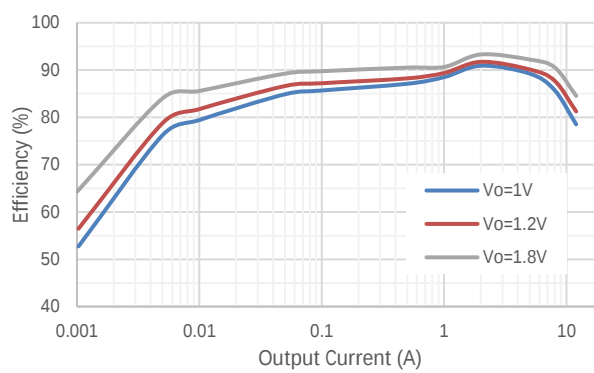


2.9V-7V, Synchronous Buck Converter



Vin=5V, fsw=800kHz, PFM Mode

PARAMETER	DEFINITION	MIN	MAX	UNIT

PARAMETER	DEFINITION	MIN	MAX	UNIT

PARAMETER	THERMAL METRIC	QFN-12L	UNIT

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SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
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Power Supply and Output

Reference and Control Loop

Power MOSFETs

Enable and Soft-start

Operation Mode

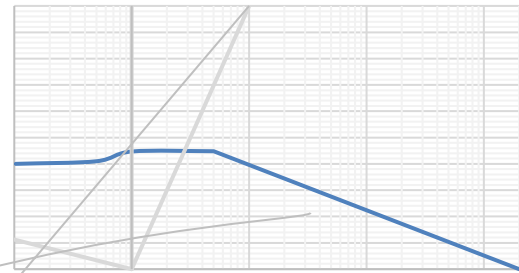
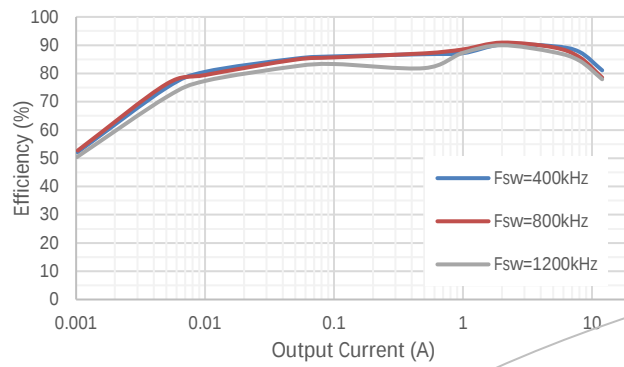
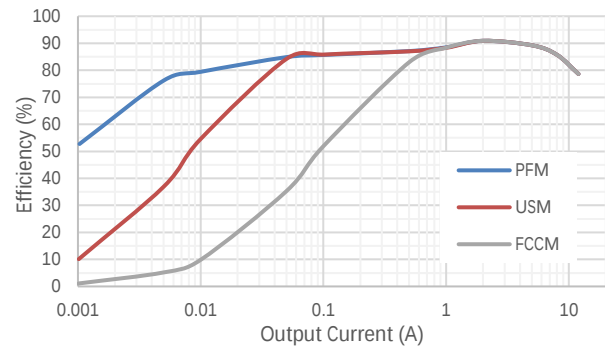
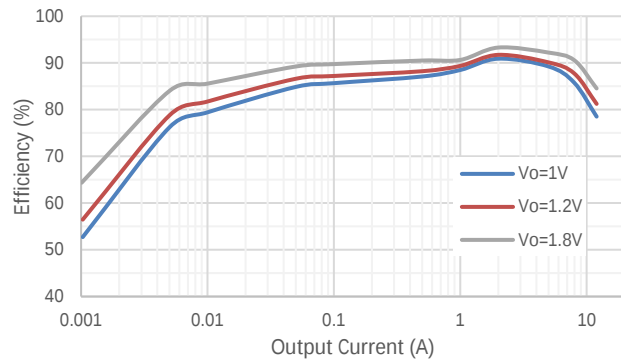
Switching Frequency

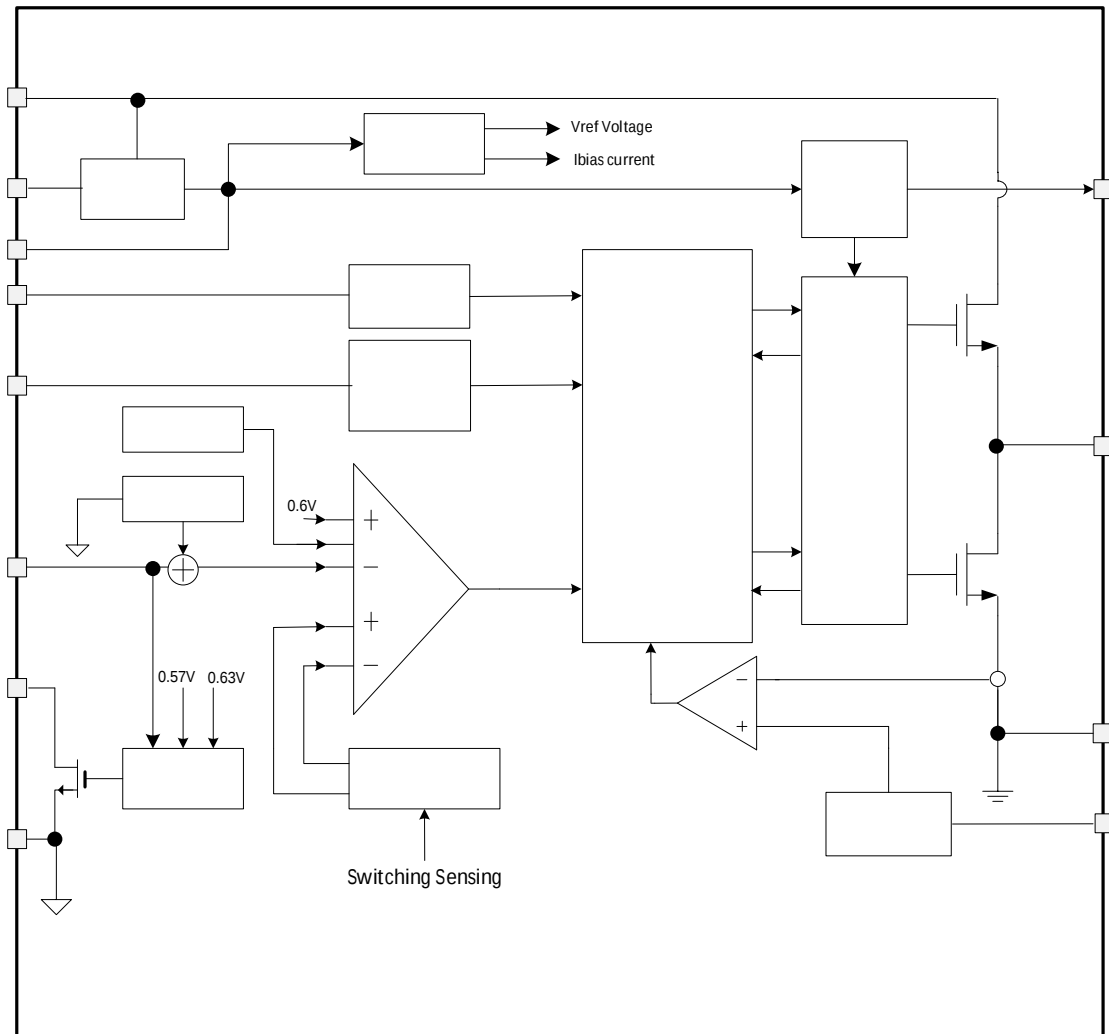
Power Good

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SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
Protection						

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Overview

Ω

Constant on-time (COT) Mode Control

Pulse Frequency Modulation (PFM) and Ultra-sonic Modulation (USM) Modes

Forced Continuous Conduction Mode (FCCM)

Enable and Under Voltage Lockout Threshold

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Mode Selection

Table 3. MODE Pin Set-up for Mode Selection

Power Good (PG)

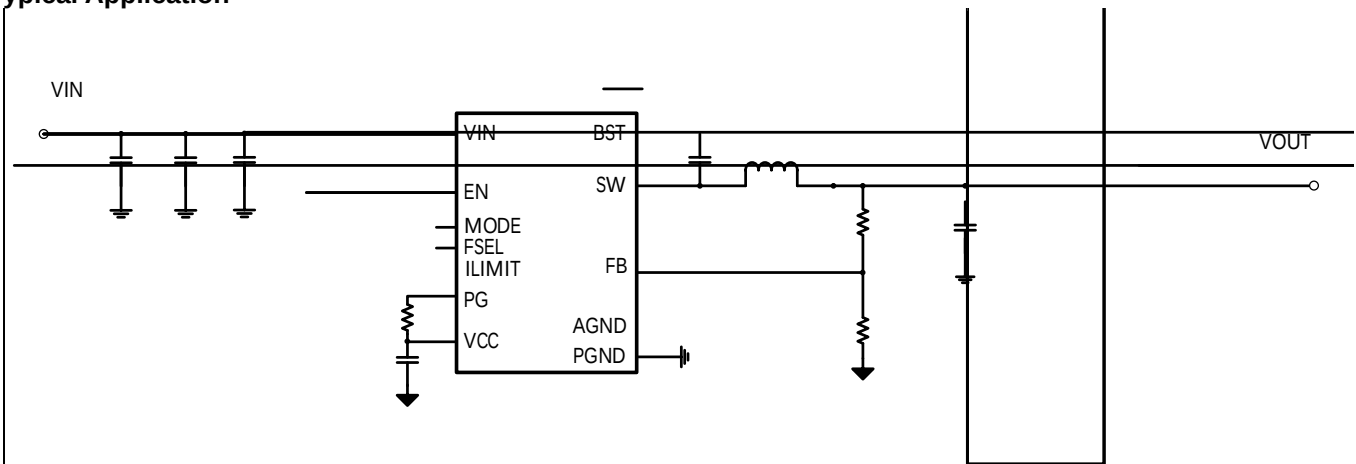
Bootstrap Voltage Regulator

Over Current Limit and Hiccup Mode

Under-voltage Protection

Over voltage Protection

Typical Application



Design Parameters

Design Parameters	Example Value

Input Capacitor Selection

Output Capacitor Selection

$$\frac{f_s = 1}{f_s = 1}$$

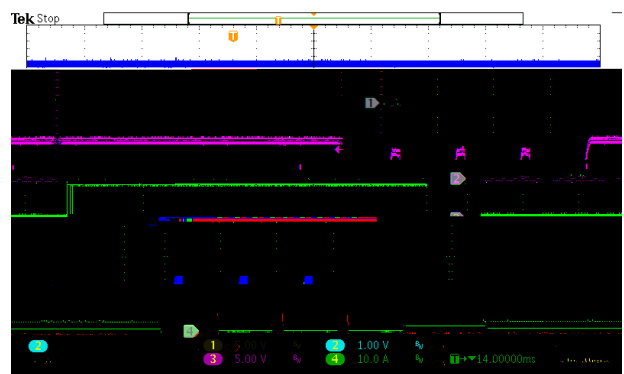
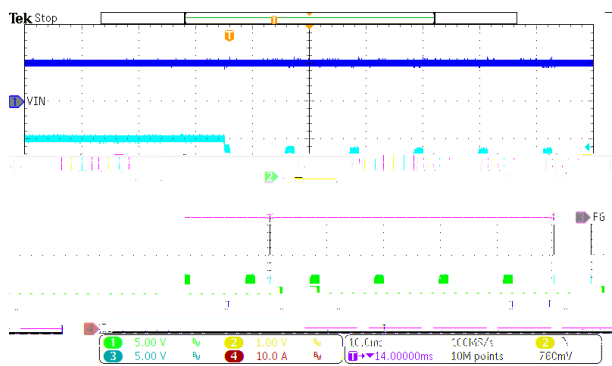
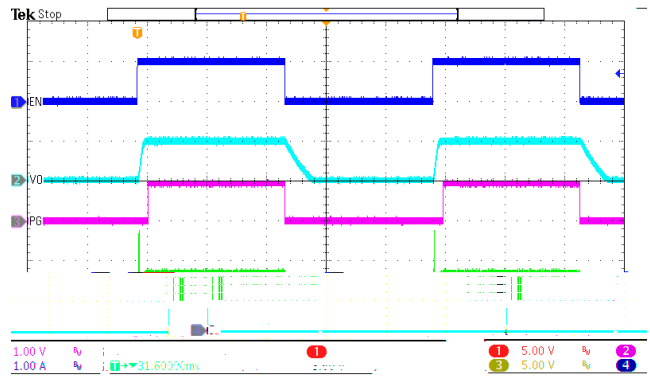
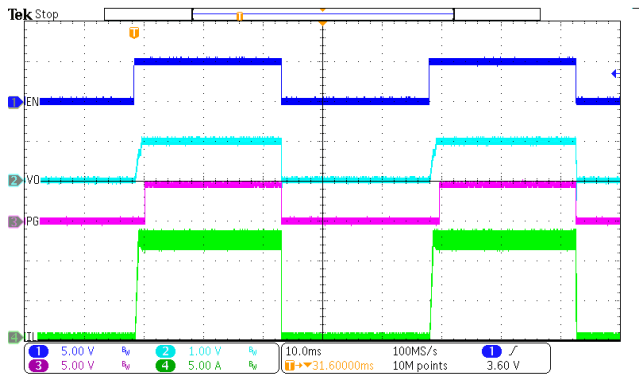
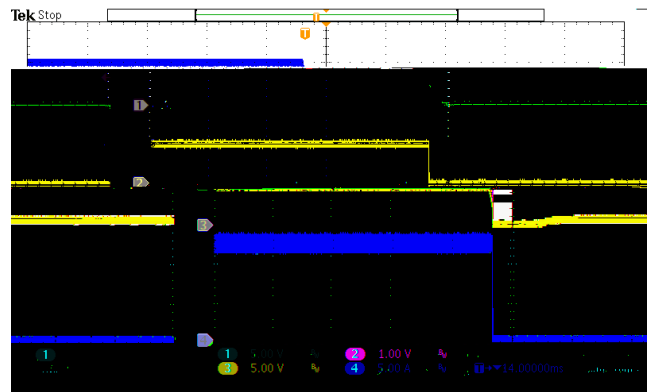
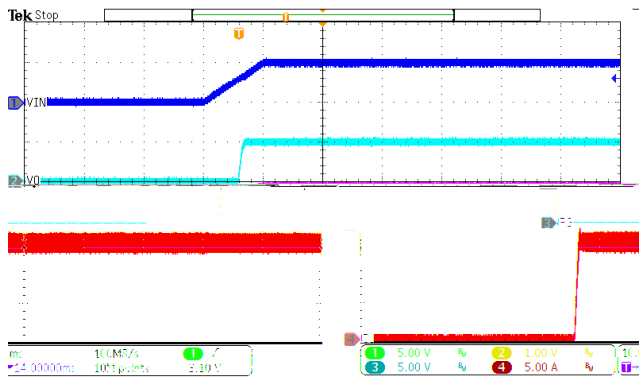
Output Feedback Resistor Divider Selection

$$\frac{f_s = T}{T}$$

Table 3 Recommended Component Values for Typical Output Voltage (Vin=5V)

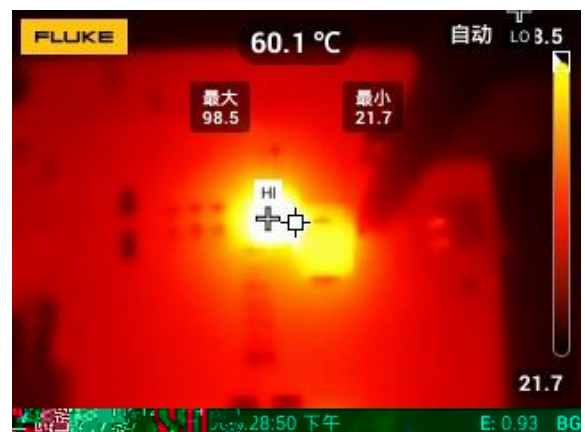
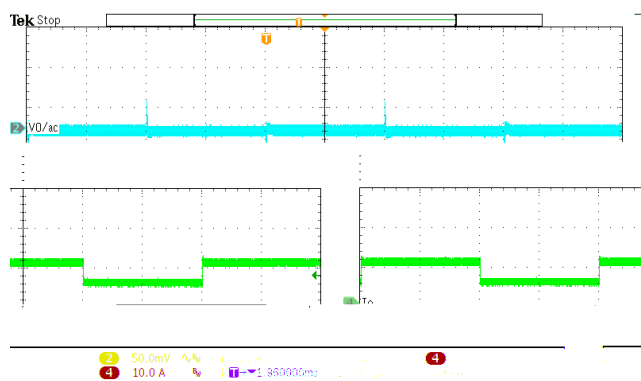
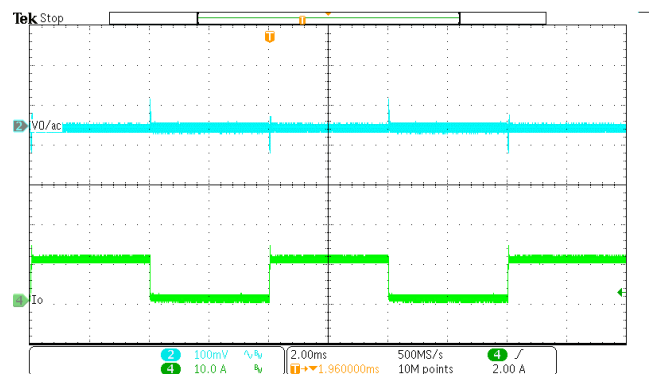
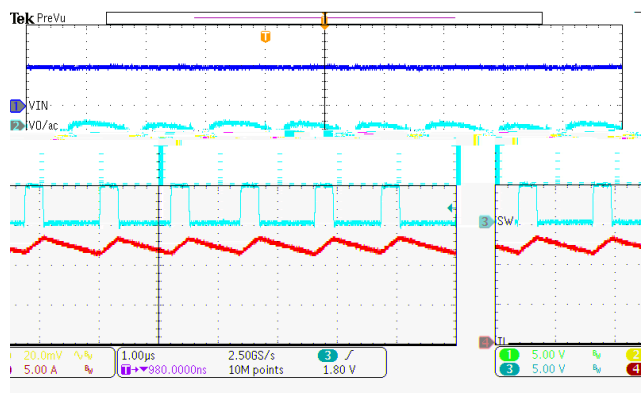
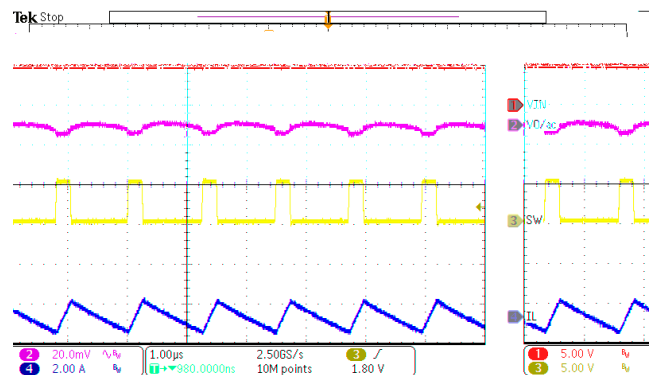
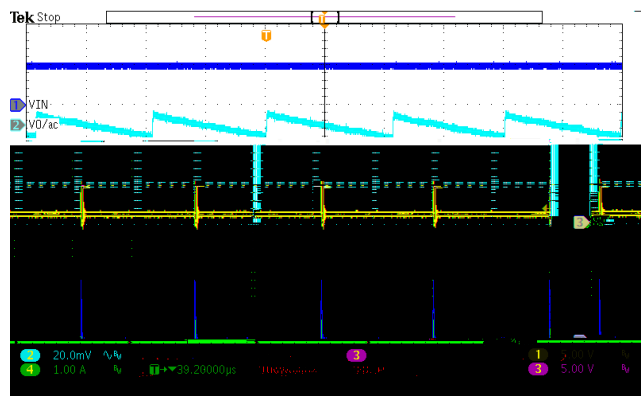
Fsw (kHz)	Vout (V)	L (uH)	R7 (k)	R8 (k)	Cf (pF)

Application Waveforms

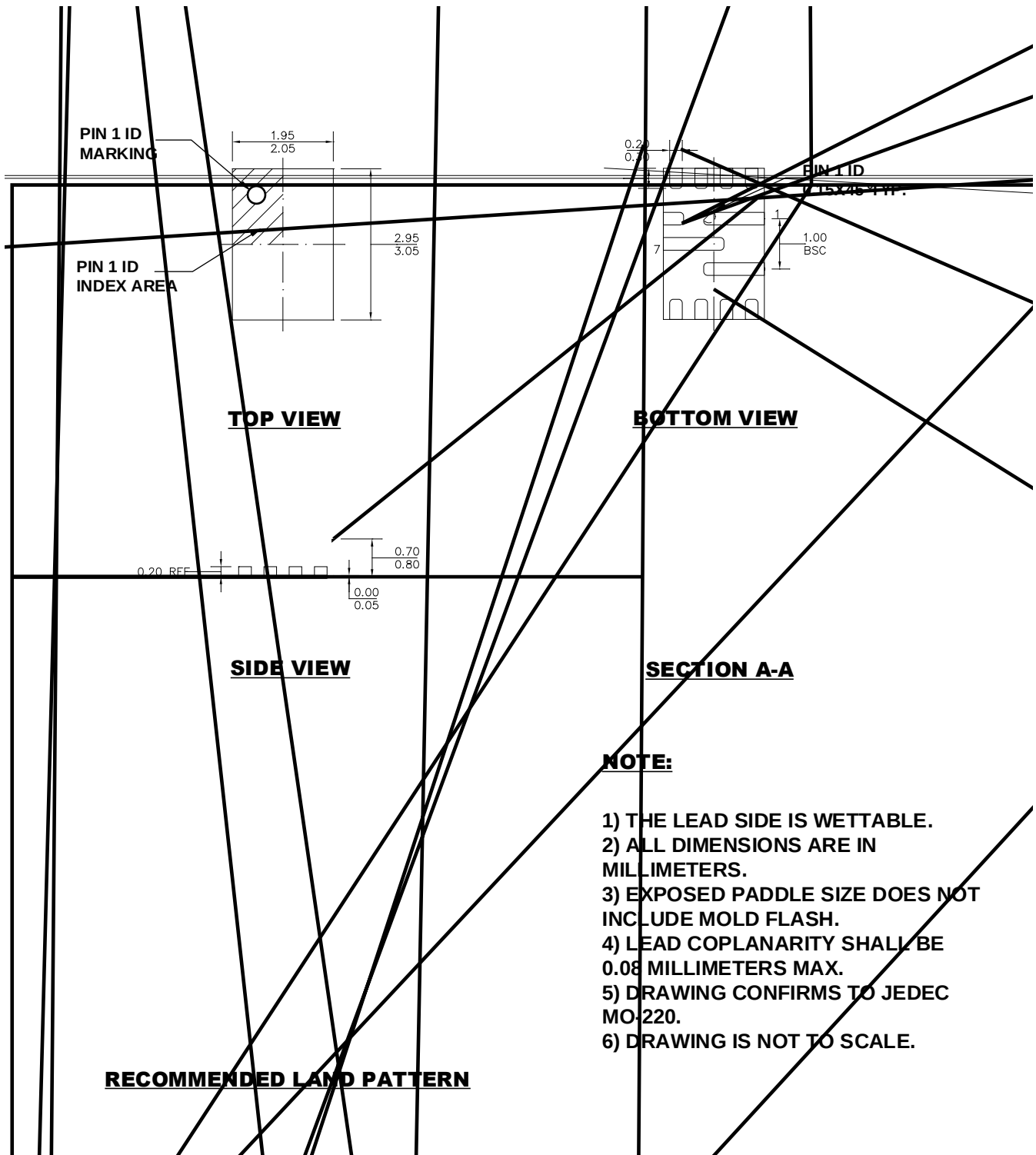


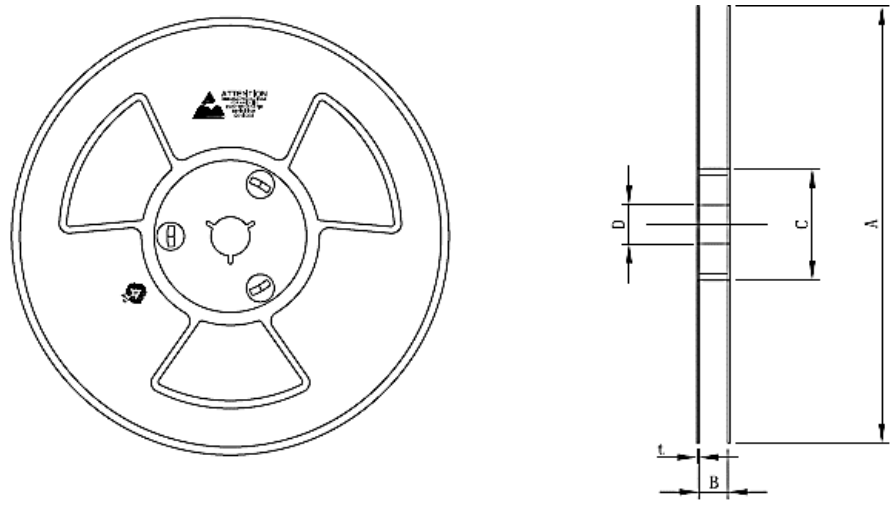
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Application Waveforms(Continued)

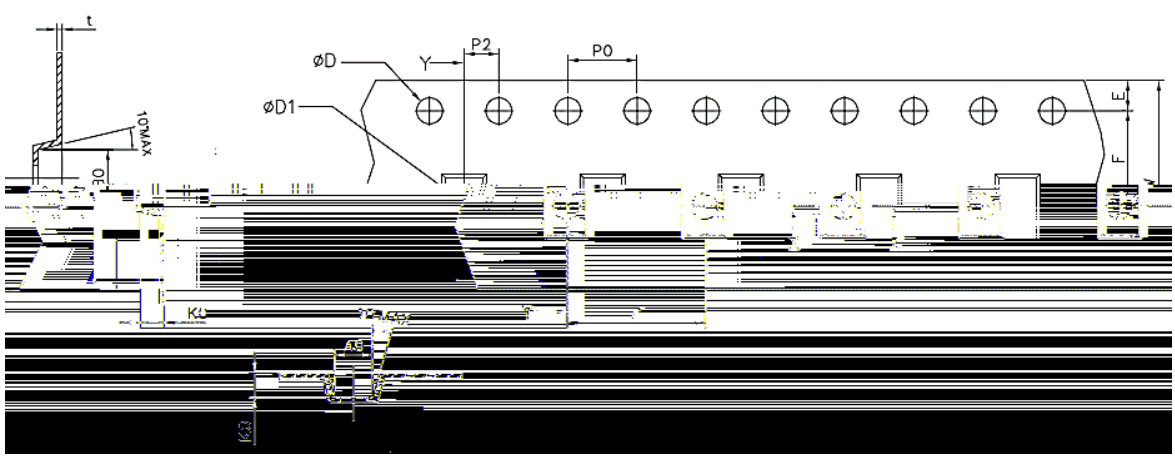


Layout Guideline





SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A			
B			
C			
D			
t			



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
E			
F			
P2			
D			
D1			
P0			
W			
P			
A0			
B0			
K0			
t			