

40W High-Integration, High-Efficiency PMIC for Wireless Power Transmitter

H I F G

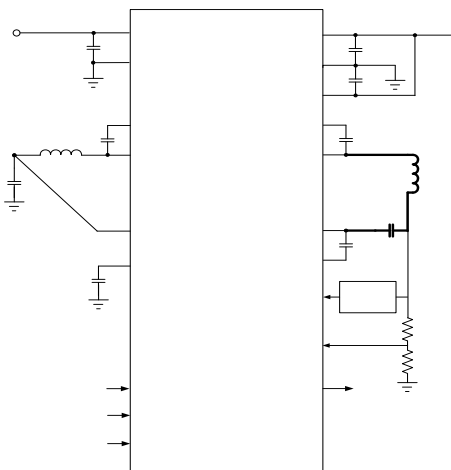
G F ?DH?C B

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DD [?] HC BG

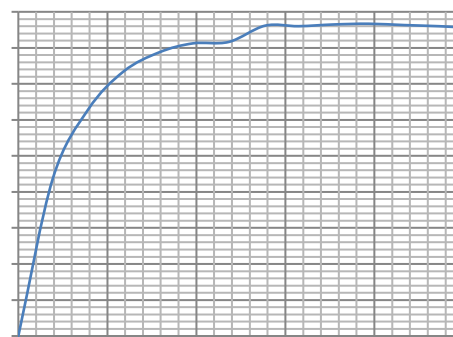
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HMD? DD ? H?C B



Dc **H**

K FL c



SCT63340

F GCB GHCFM

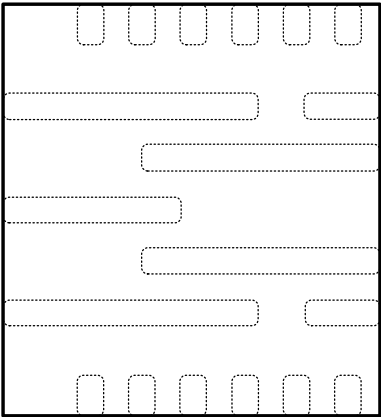
CF FB CFA HCB

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

GC IH A LAIAF HBG

DESCRIPTION	MIN	MAX	UNIT

DBC CB IF HCB



[illegible]

F CAA B CD F H?B CB ?H?C BG

PARAMETER	DEFINITION	MIN	MAX	UNIT

SCT63340

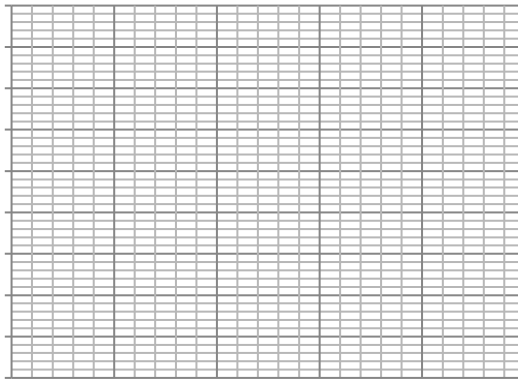
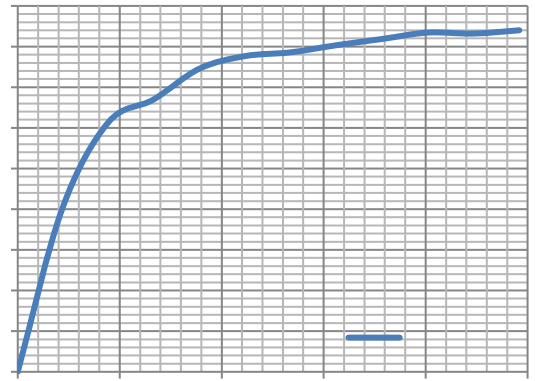
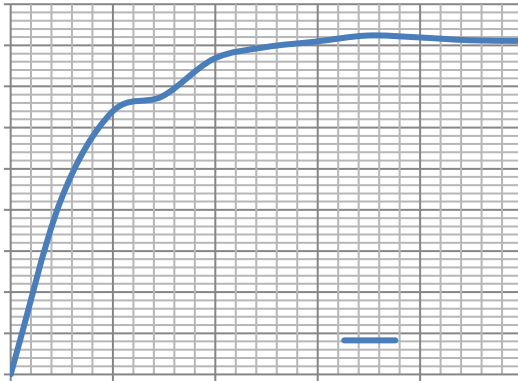
H FA 2B CFA H2CB

PARAMETER	THERMAL METRIC	FCTQFN4X4-22L	UNIT

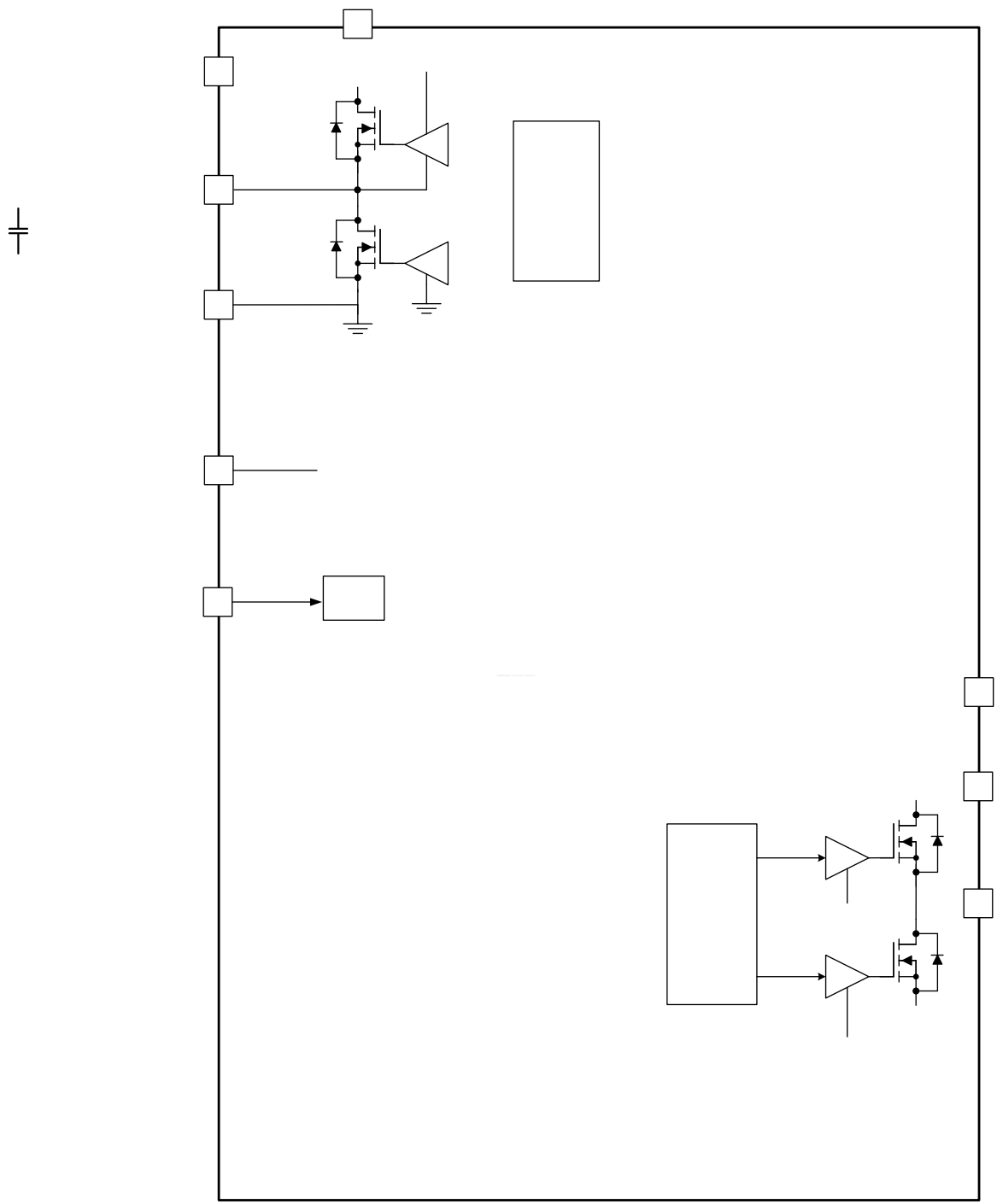
HF ? F H F ? GH ? G

SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
Input supplies and UVLO						
ENABLE INPUTS and PWM logic						
Power Stage						
Buck converter						

HMD F H F GH G



I B HCB C ? F A



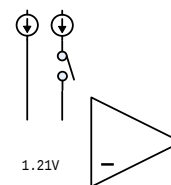
CD F HCB

Overview

Enable and Start up Sequence

$$V_{\text{rise}} = 1.19 * \left(1 + \frac{R1}{R2}\right) - 1.5\mu\text{A} * R1$$

$$V_{\text{fall}} = 1.1 * \left(1 + \frac{R1}{R2}\right) - 5.5\mu\text{A} * R1$$



5V Output Buck Converter

Full Bridge Power Stage and PWM Control

Full Bridge Over Current Protection

Current Sense

$$V_{ISNS} = 600\text{mV} + I_{PGND} * 1\text{V/A}$$

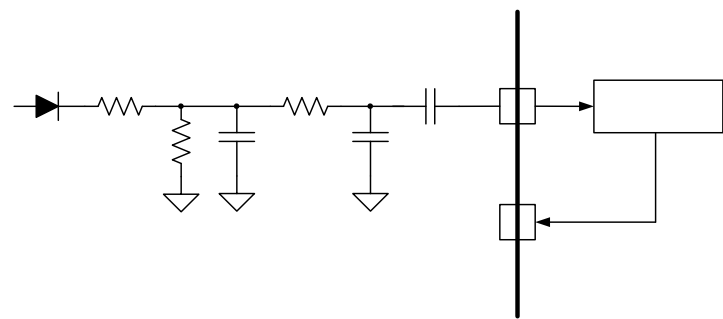
3.3V LDO

Q Factor Detection

$$Q = \frac{\Delta T * \pi}{10 * \ln \frac{V_{TH_HIGH}}{V_{TH_LOW}}}$$

- Δ
-
-

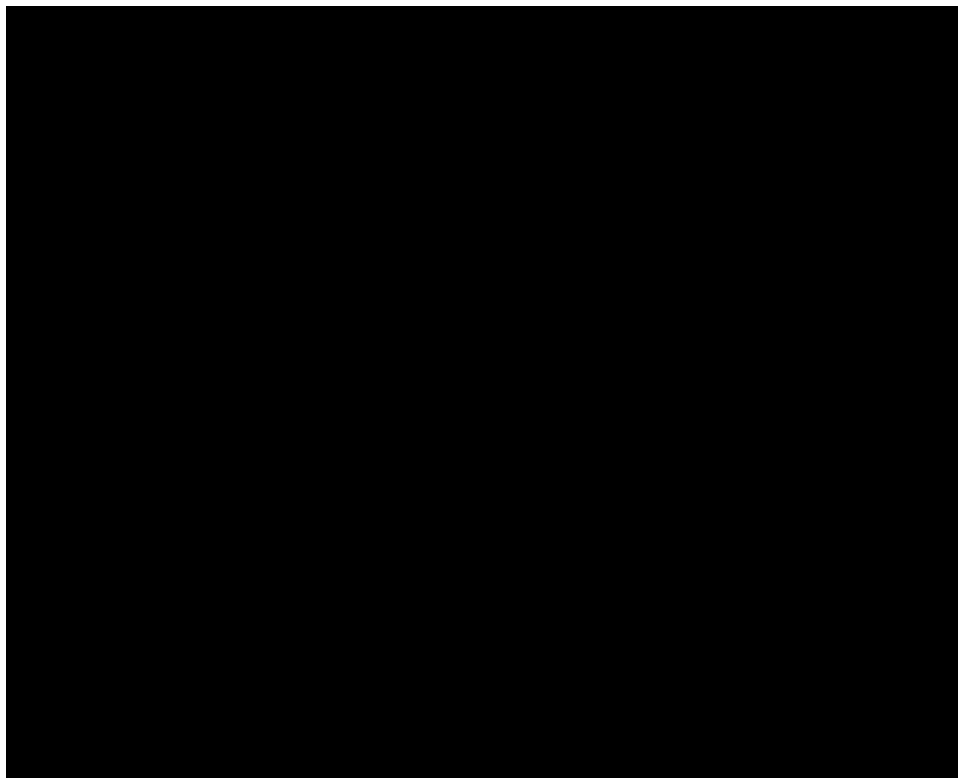
Voltage and Current Demodulation



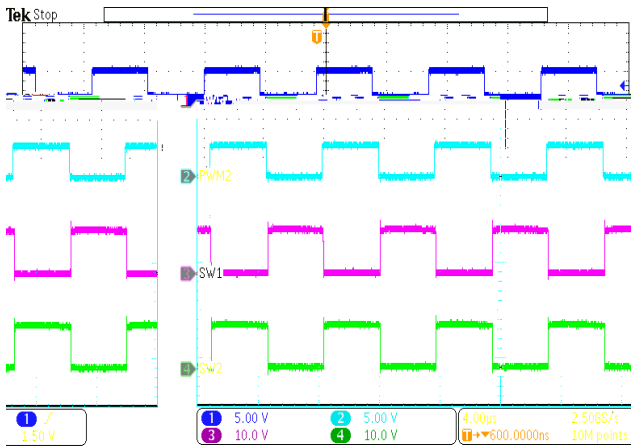
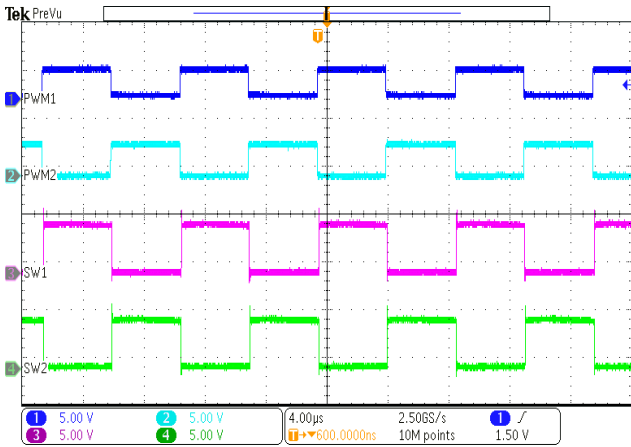
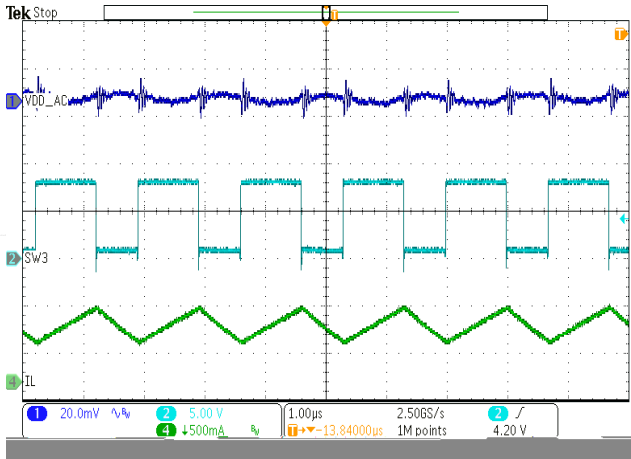
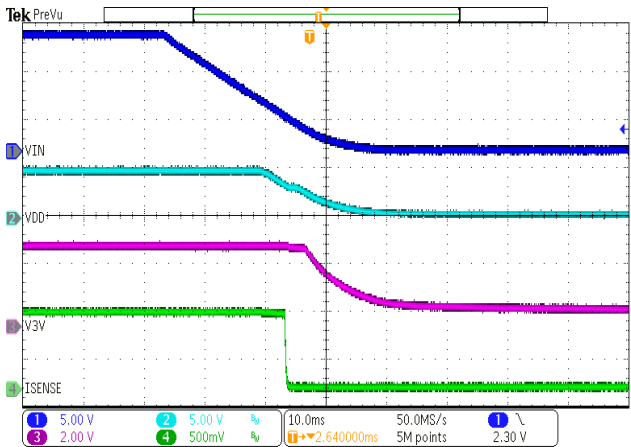
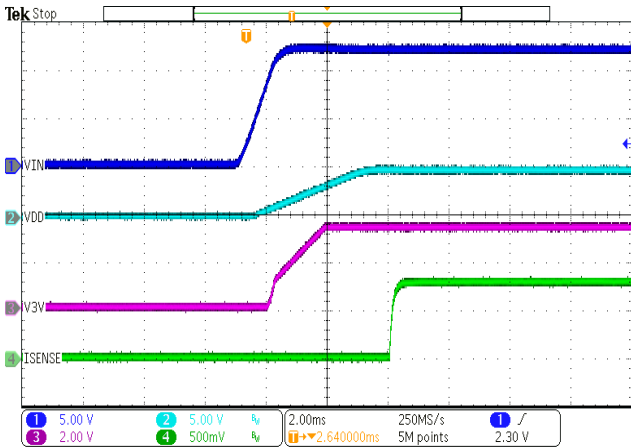
Thermal Shutdown

DD 2 HCB 2B CFA HCB

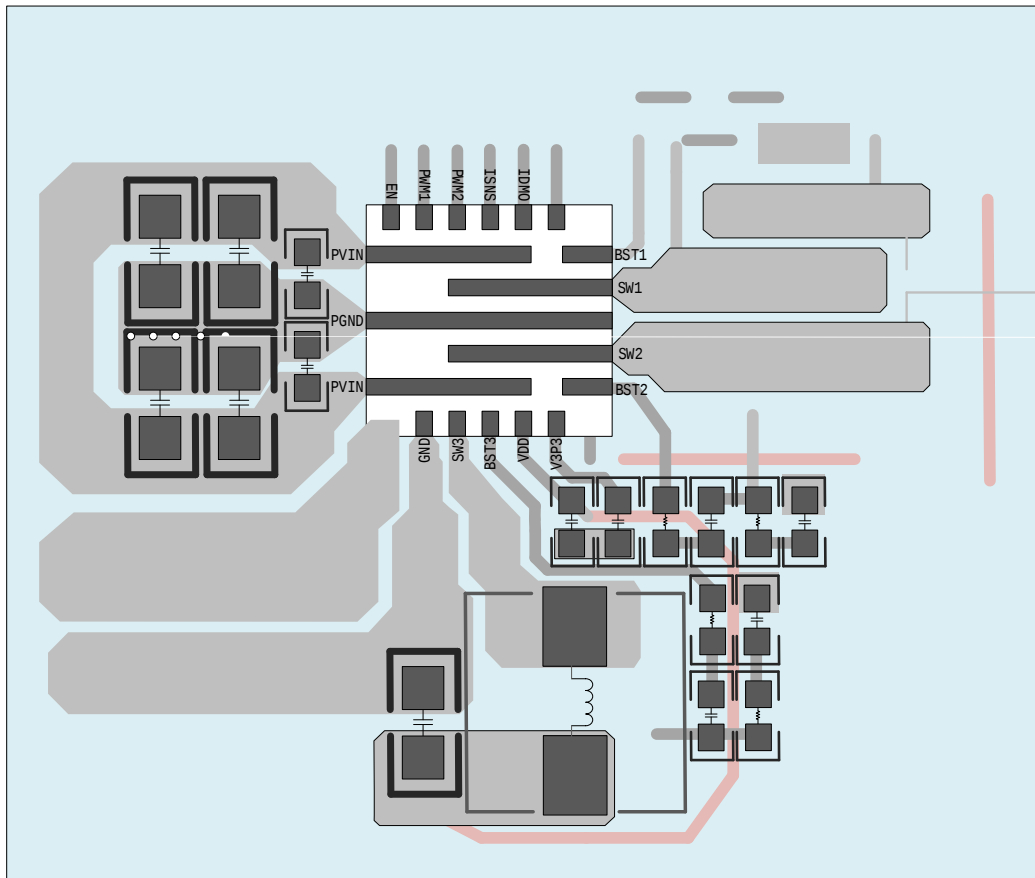
Typical Application



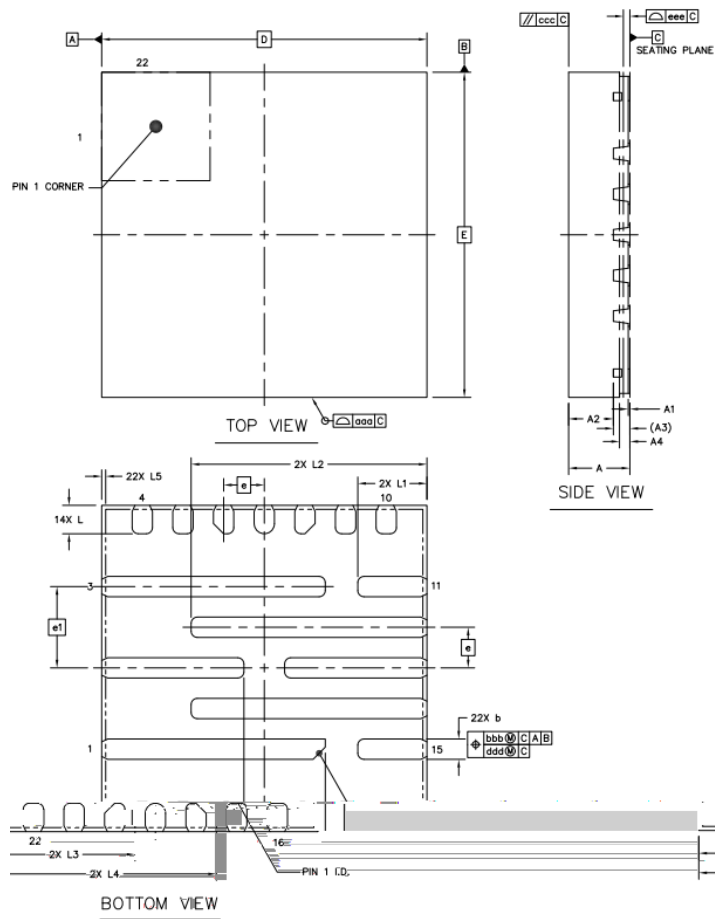
Application Waveforms



Layout Guideline



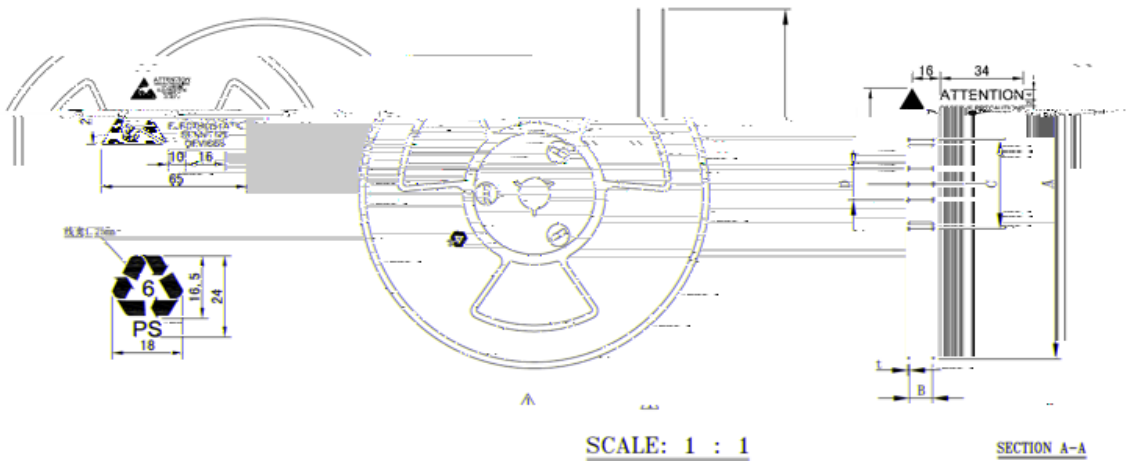
D B CFA HCB

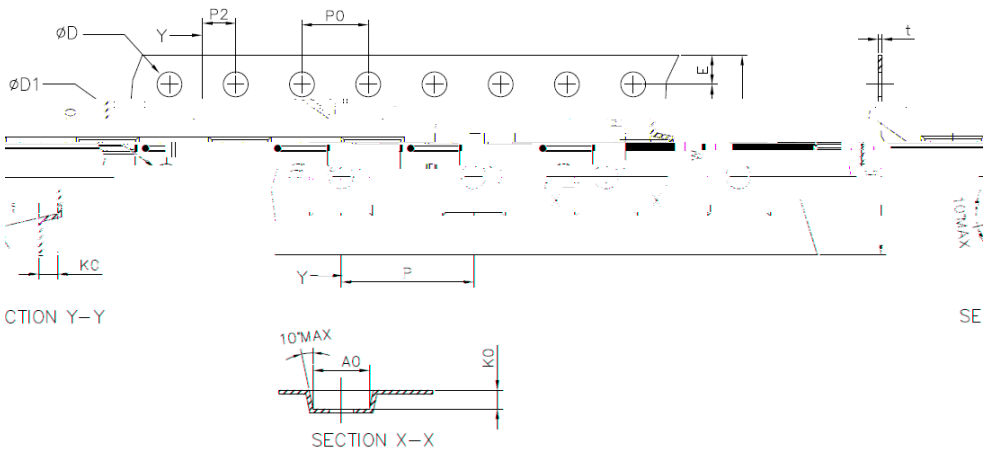


	SYMBOL	MIN	NOM	MAX
TOTAL THICKNESS			0.75	0.8
02	STAND OFF	A1	0	0.1
55	MOLD THICKNESS	A2		0.1
5 REF	L/F THICKNESS	A3		0.20
0.18	SIDE WETTABLE DEPTH	A6	0.075	
4 BSC	BODY SIZE	X	D	
4 BSC		Y	E	
0.5 BSC	LEAD PITCH		0.1	
1 BSC			0.1	
0.35			0.4	
0.85			0.9	
2.9			2.95	
1.75			1.8	
2.75			2.8	
0.05			0.05	
0.1			0.1	
0.1			0.1	
0.08	COPLANARITY		eee	
0.1	LEAD OFFSET		bbb	
0.05			dcd	

NOTE:

H D B F 2B CFA HCB





F H D FHG

PN	DESCRIPTION	COMMENTS
SCT63240		
SCT63140		

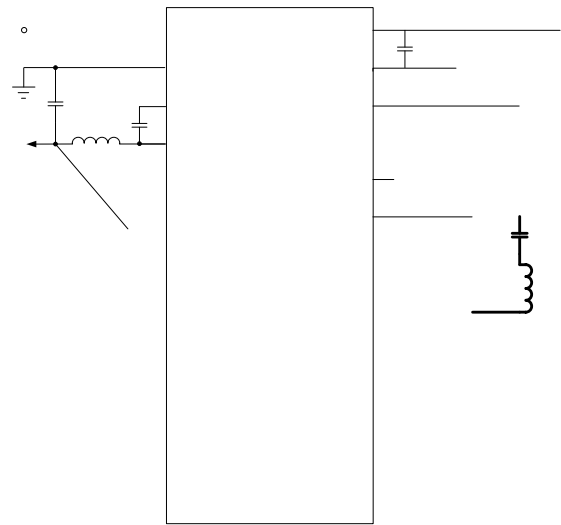


Figure 25. SCT63240 Typical Application

NOTICE: