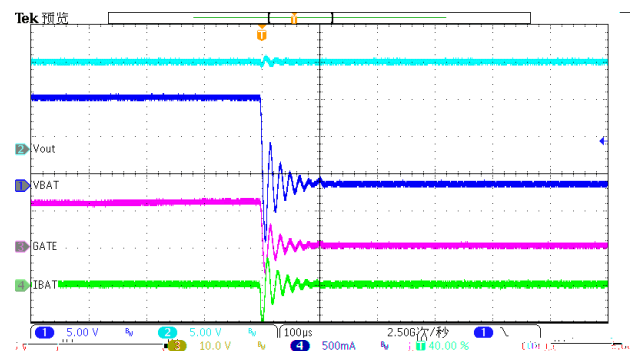
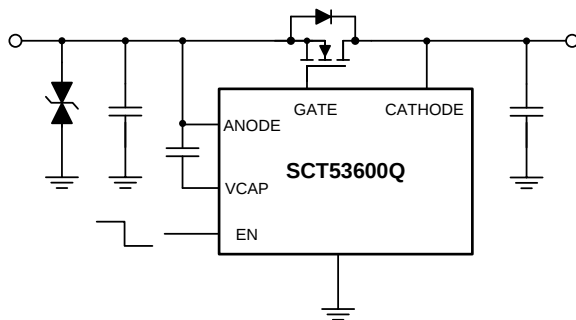


DESCRIPTION

-
-
-
-
-
-



SCT53600Q

REVISION HISTORY

:	IQ_Charge On MAX and MIN.
:	.
:	.

DEVICE ORDER INFORMATION

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

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	MIN	MAX	UNIT

(1)

(2)

PIN CONFIGURATION

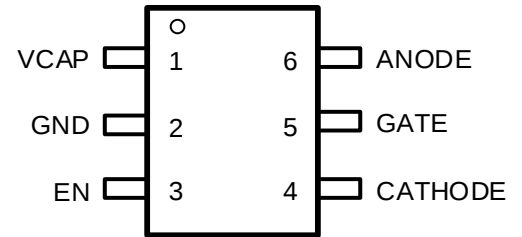


Figure 1. 6-Lead Plastic SOT23-6L

PIN FUNCTIONS

NAME	NO.	PIN FUNCTION

RECOMMENDED OPERATING CONDITIONS

PARAMETER	DEFINITION	MIN	MAX	UNIT

ESD RATINGS

PARAMETER	DEFINITION	MIN	MAX	UNIT

(1)

(2)

THERMAL INFORMATION

PARAMETER	THERMAL METRIC	SOT23-6L	UNIT

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	TEST CONDITION	MIN	TYP	MAX	UNIT
--------	-----------	----------------	-----	-----	-----	------

SUPPLY VOLTAGE

V _(ANODE)						
V _(ANODE POR)	VANODE POR Rising threshold VANODE POR Falling threshold					
I _{SHDN}		V _{EN} = 0V				
I _{Q_Charge Off}						
I _{Q_Charge On}						

ENABLE

V _{EN_H}	Enable input high threshold					
V _{EN_L}	Enable input low threshold					
V _{EN_HYS}	Enable Hysteresis					
I _{EN}	Enable sink current	V _{EN} = 12 V				

SCT53600Q

V_{ANODE} to V_{CATHODE}

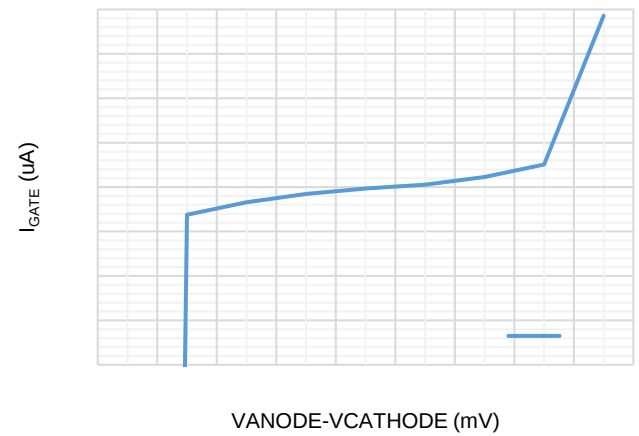
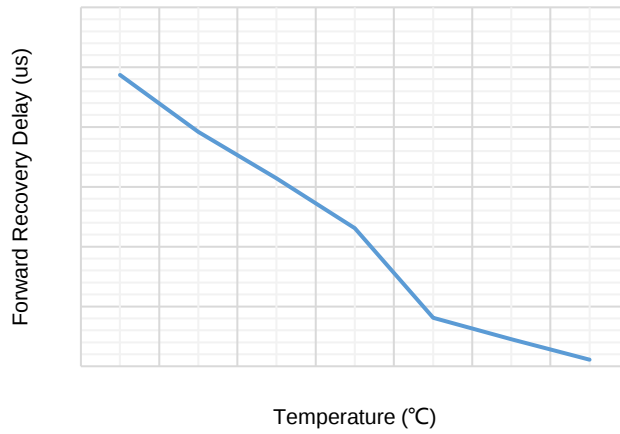
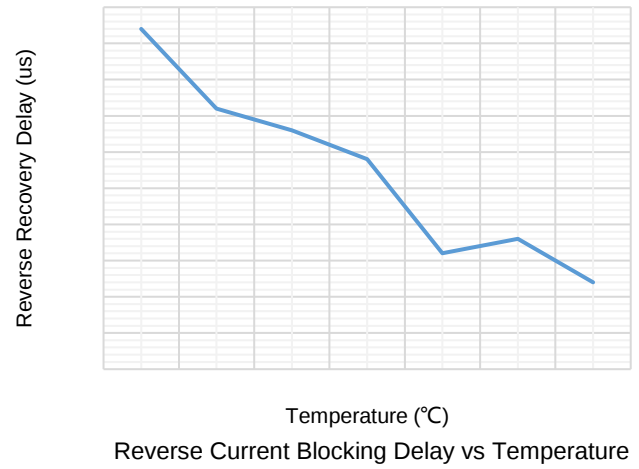
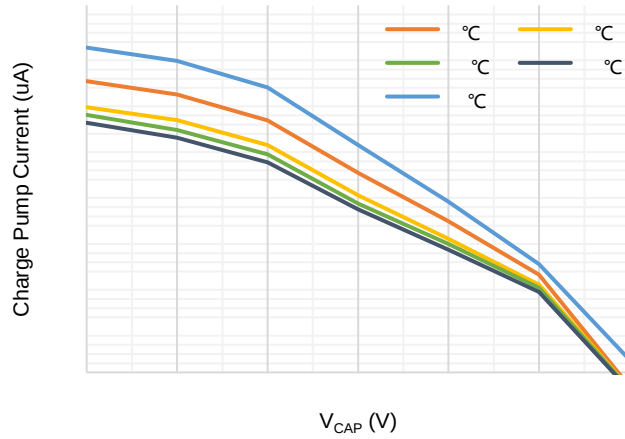
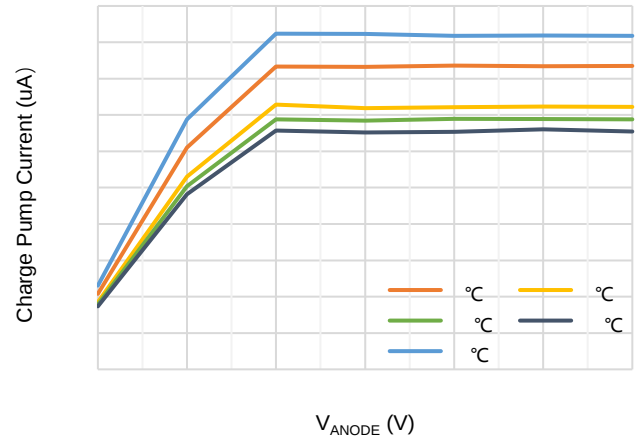
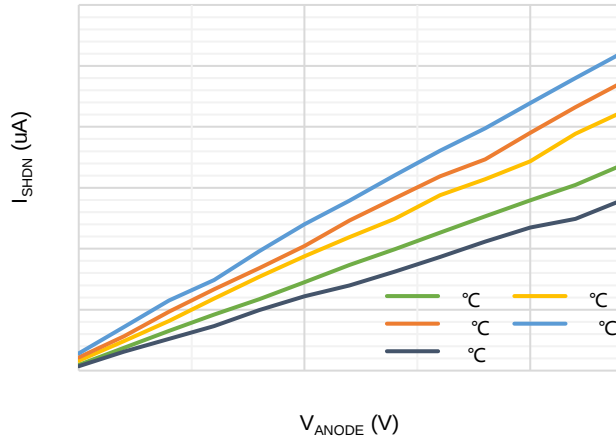
V _{AC_REG}	Regulated Forward Threshold	°C		
		°C		
V _{AC}	threshold for full conduction mode			
V _{AC_REV}	threshold for reverse current blocking	°C		
G _m	Regulation Error AMP Transconductance*			

GATE DRIVE

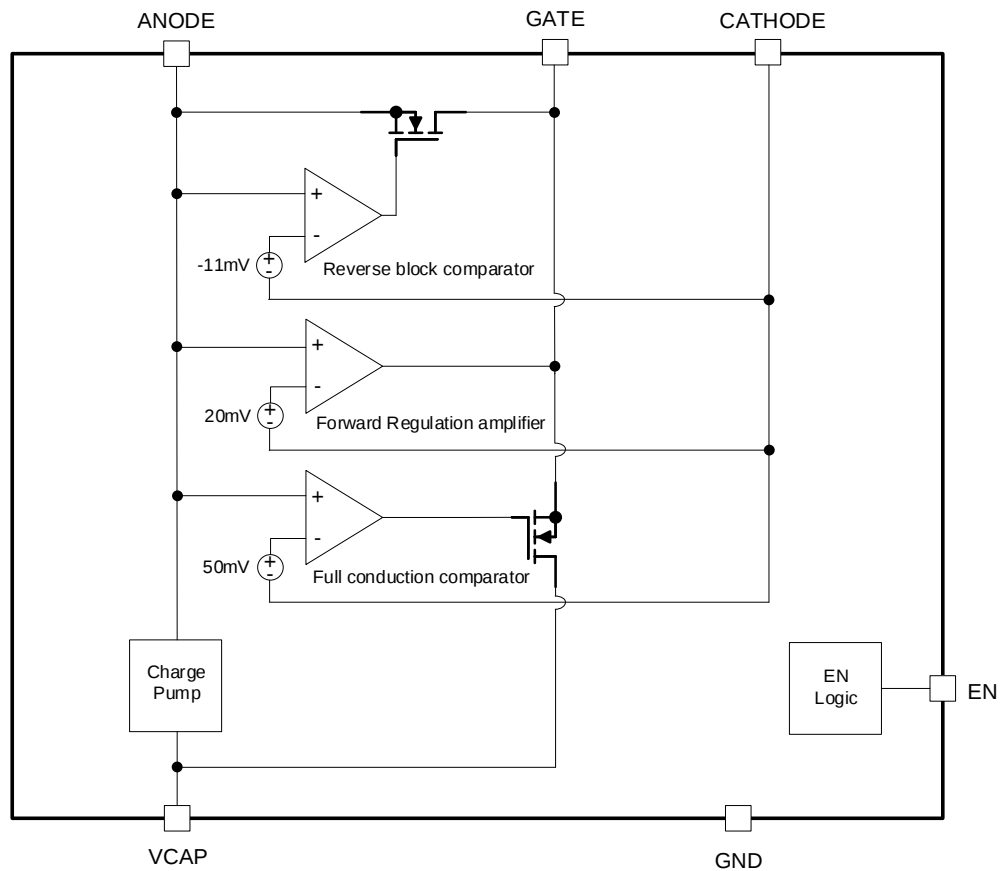
	Peak source current	V _{ANODE} V _{CATHODE} = 100 mV, V _{GATE} V _{ANODE} = 5 V		
	Peak sink current*	V _{ANODE} V _{CATHODE} = 20 mV, V _{GATE} V _{ANODE} = 5 V		
	Regulation max sink current	V _{ANODE} V _{CATHODE} = 0 V, V _{GATE} V _{ANODE} = 5 V		

R_{DS(on)} discharge switch R_{DS(on)}

TYPICAL CHARACTERISTIC



FUNCTIONAL BLOCK DIAGRAM



OPERATION

Overview

protection circuit or be used in a . This easy to use ideal diode controller operates in polarity conjunction with an external N-channel MOSFET to replace other reverse polarity schemes such as a P-channel MOSFET or a Schottky diode.

full conduction mode

reverse current protection mode

forward regulation mode

APPLICATION INFORMATION

Typical Application- Reverse Polarity Protection

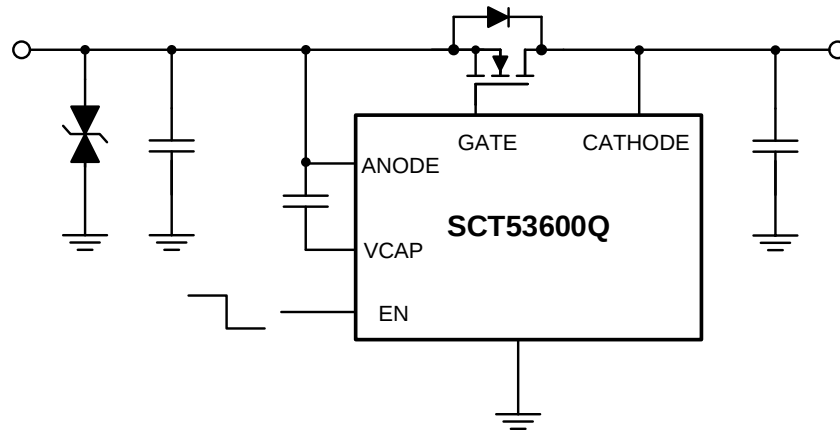


Figure 9. Typical 12V Battery Protection with single bi-directional TVS

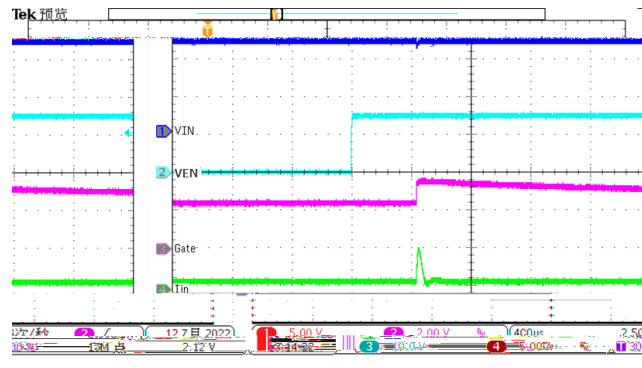
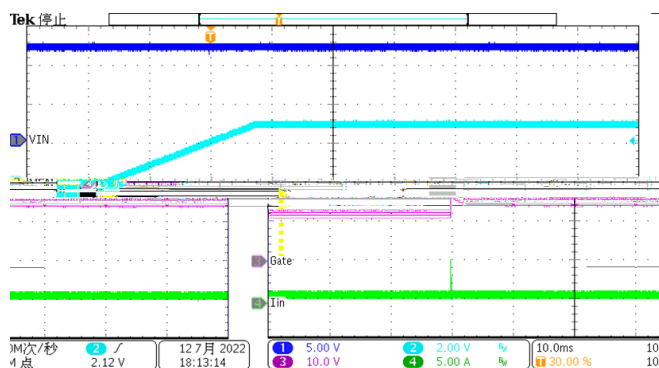
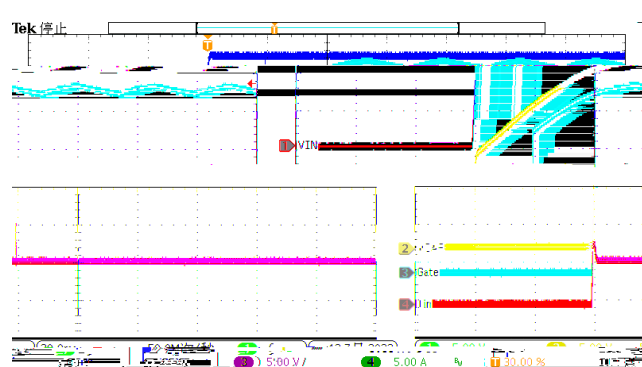
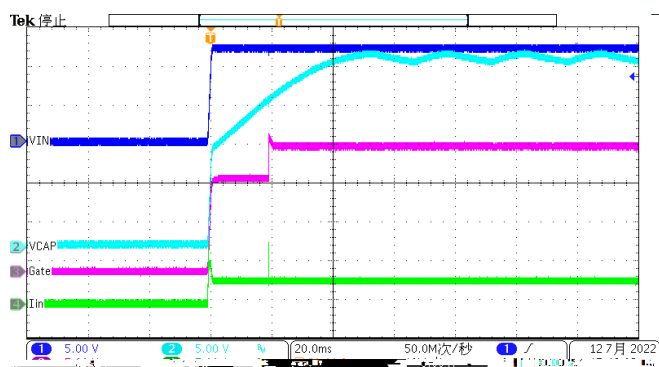
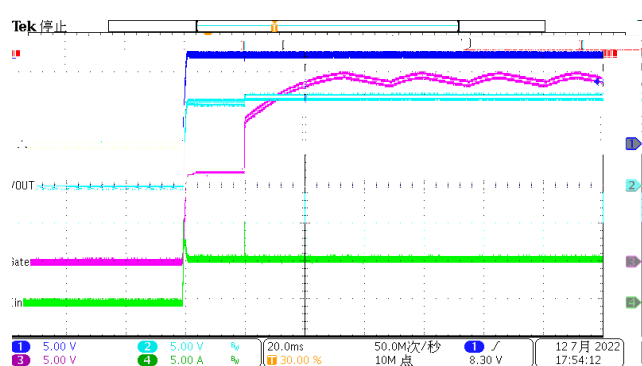
Design Parameters	
Design Parameters	Example Value

SCT53600Q

MOSFET Selection

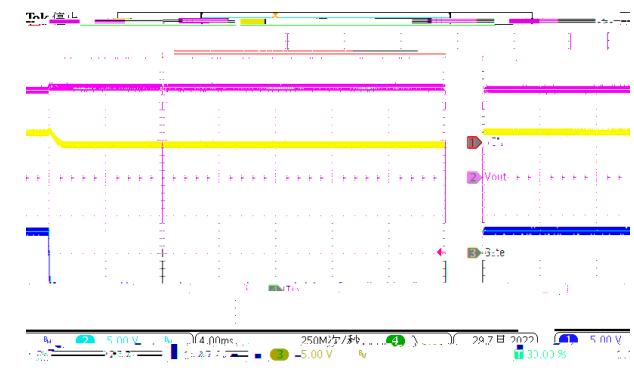
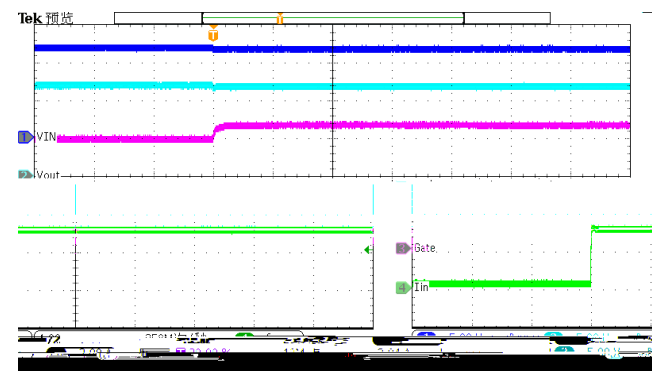
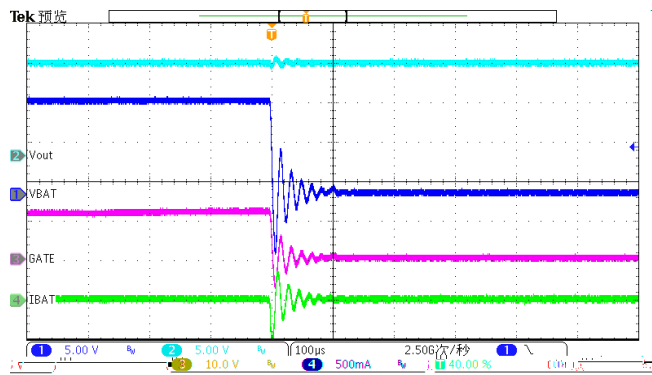
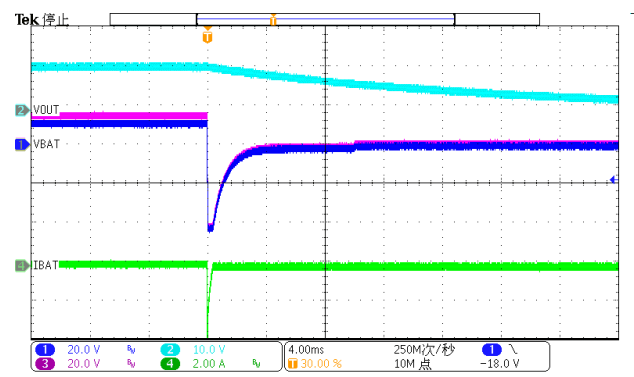
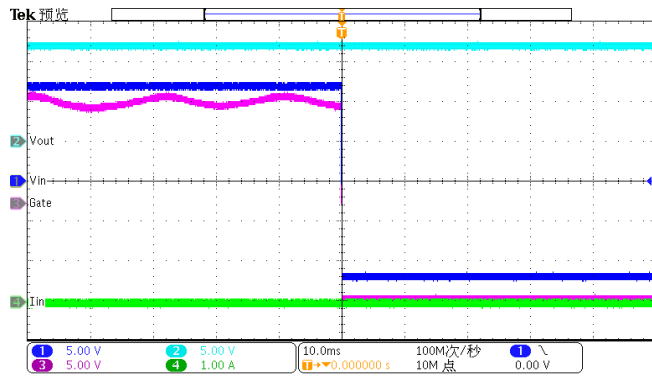
maximum continuous drain current I_D ,
maximum source current through body diode,

Application Waveforms



SCT53600Q

Application Waveforms(continued)



APPLICATION INFORMATION

Typical Application- Redundant Power

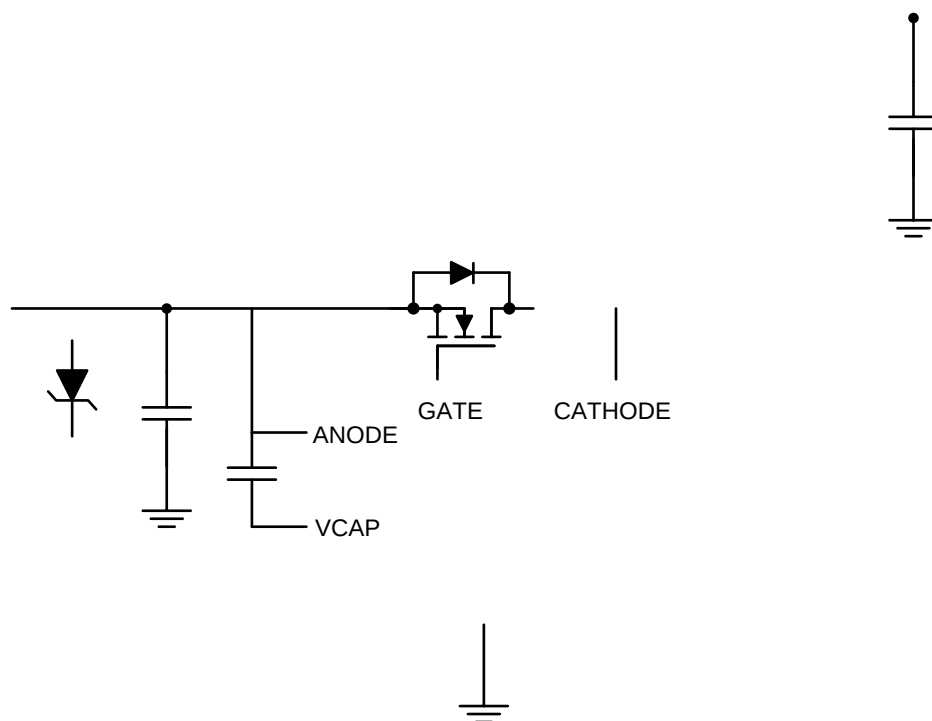
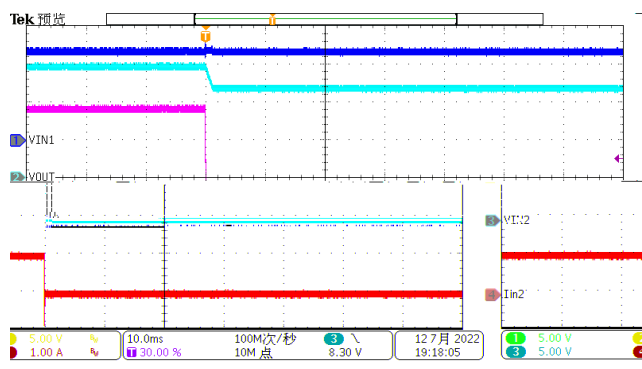
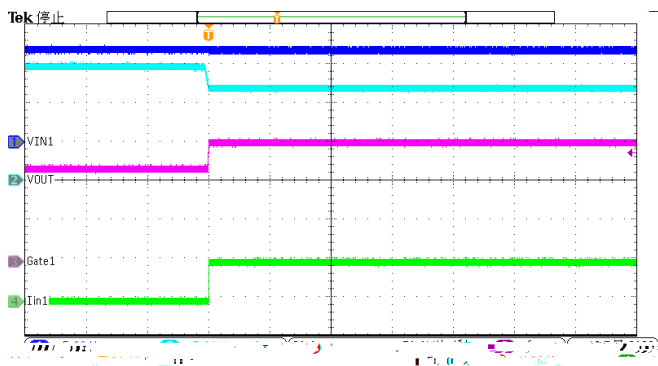
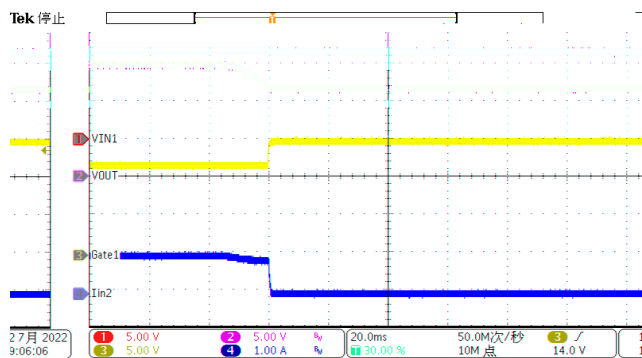
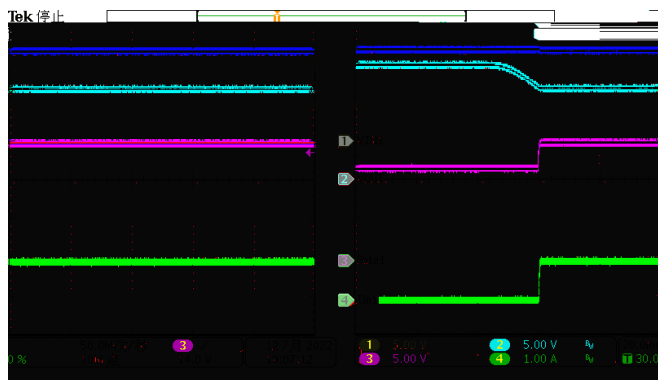
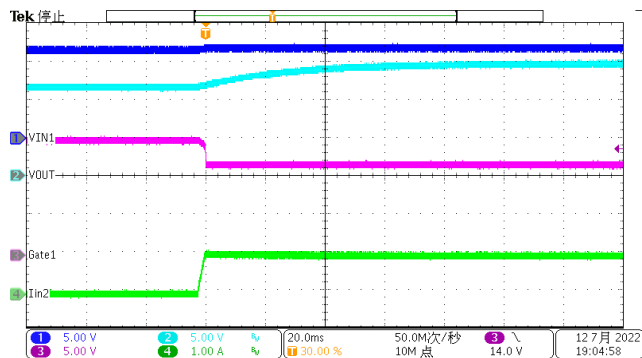
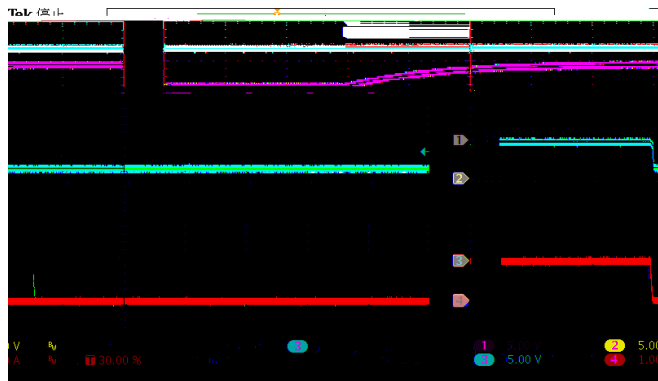


Figure 22. Redundant Power Supply Application

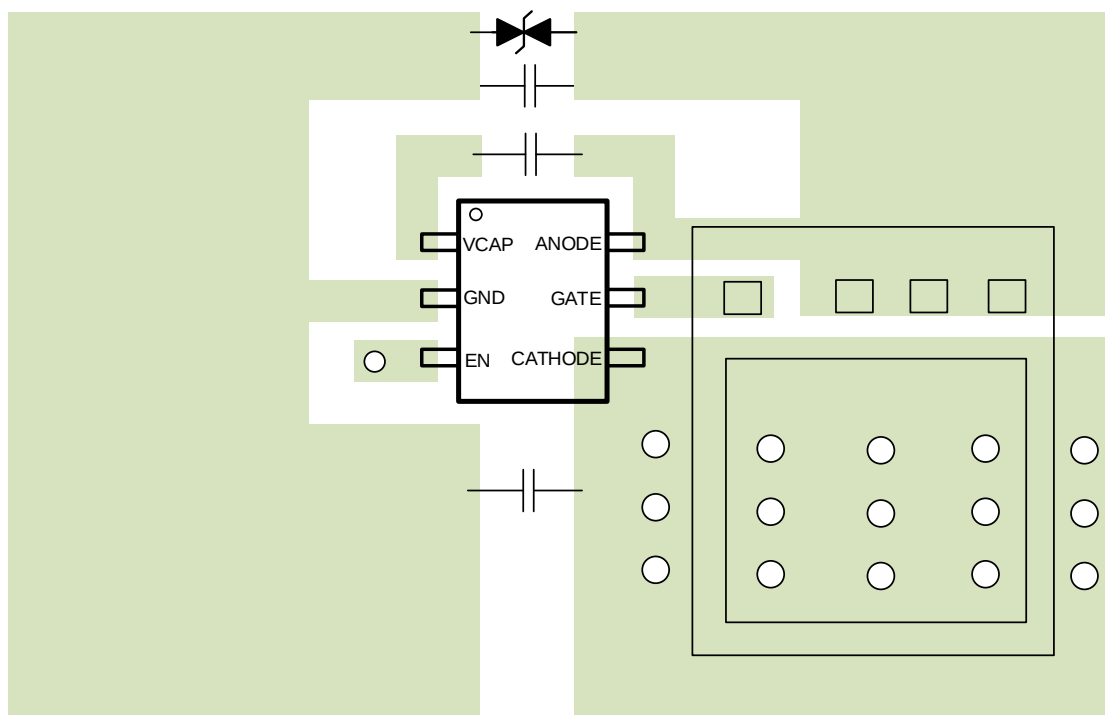
SCT53600Q

Application Waveforms

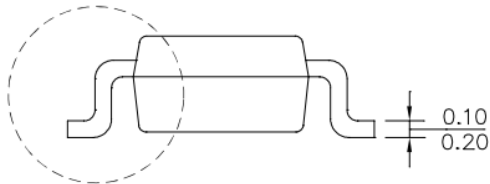
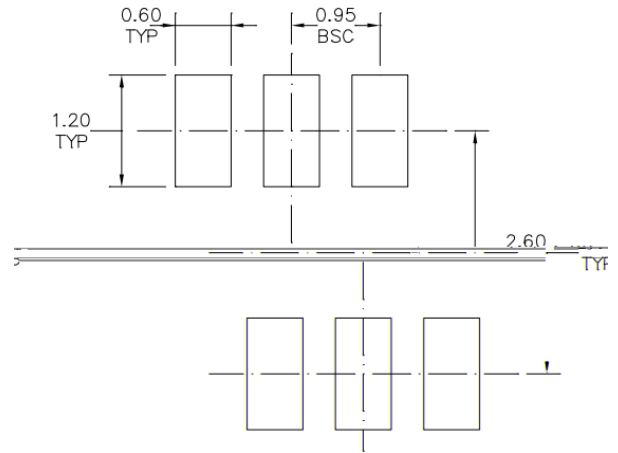
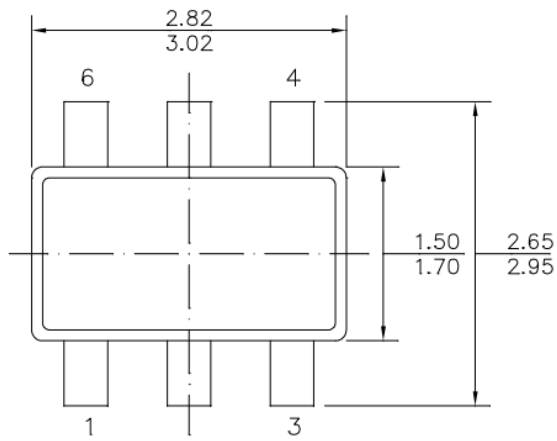


Layout Guideline

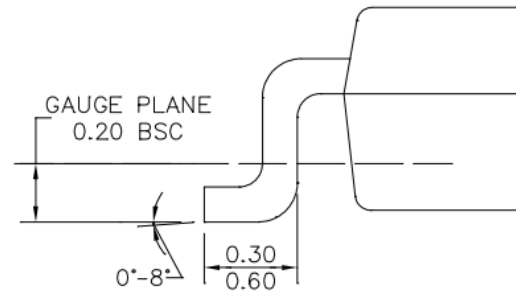
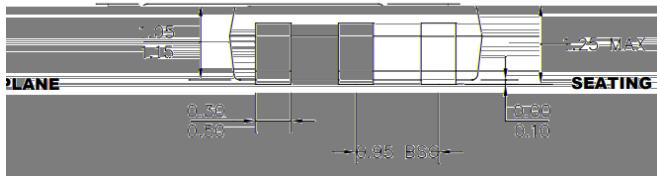
- 1.
- 2.
- 3.
- 4.
- 5.



PACKAGE INFORMATION



SEE DETAIL "A"



NOTE:

- 1.
- 2.
- 3.
- 4.
- 5.

TAPE AND REEL INFORMATION

