

Ideal Diode Controller with Reverse-Current Protection

FEATURES

DESCRIPTION

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APPLICATIONS

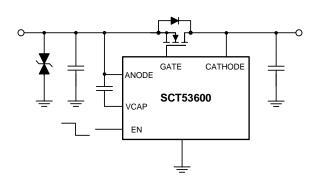
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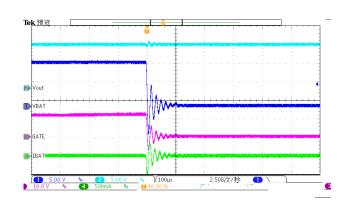
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TYPICAL APPLICATION



Typical Application





REVISION HISTORY

IQ_Charge On MAX and MIN

threshold

DEVICE ORDER I					
	1)				
ABSOLUTE MAX	KIMUM RAT	TINGS		PIN CON	FIGURATION
(1)				VCAP C 1 GND 2 EN 3	6 ANODE 5 GATE 4 CATHODE
PIN FUNCTIONS					



RECOMM	ENDED OPERATING CONI	DITIONS		
ESD RATI	NGS		1	
(1) (2)		,		
THERMAI	LINFORMATION			

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Vanode to Vcathodi	<u> </u>		
V_{AC_REG}	Regulated Forward Threshold		
Vac	threshold for full conduction mode		

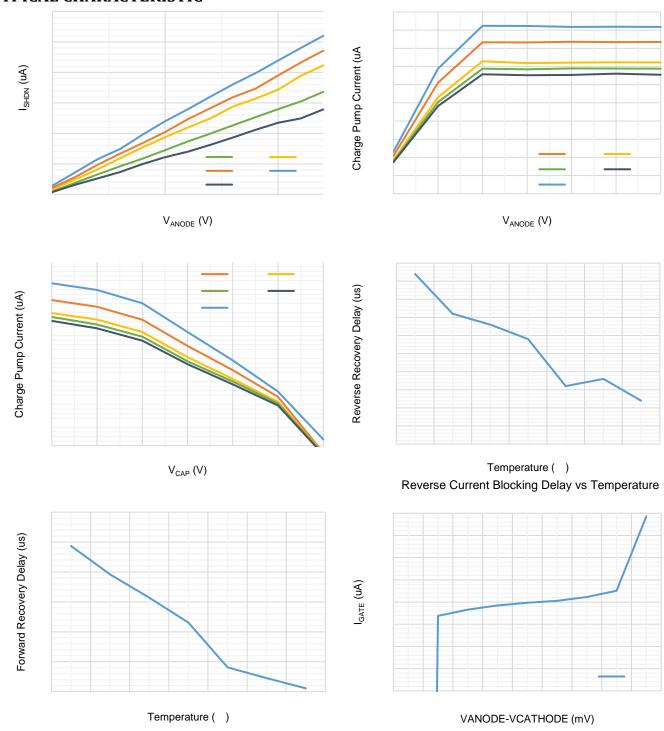
GATE DRIVE

 $\begin{array}{ccc} \text{Peak source current} & & & V_{\text{ANODE}} & V_{\text{CATHODE}} = 100 \text{ mV}, \\ V_{\text{GATE}}) & V_{\text{ANODE}} = 5 \text{ V} \end{array}$



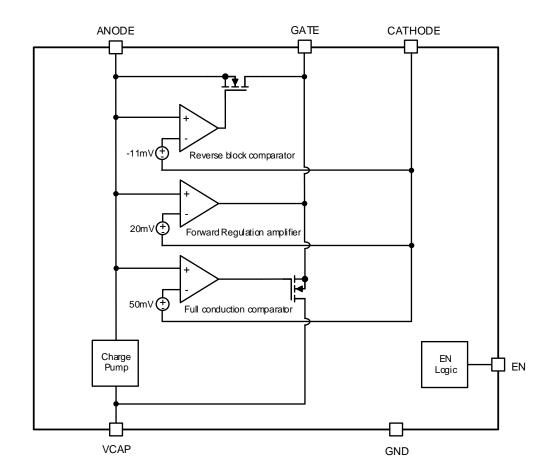


TYPICAL CHARACTERISTIC





FUNCTIONAL BLOCK DIAGRAM





OPERATION

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



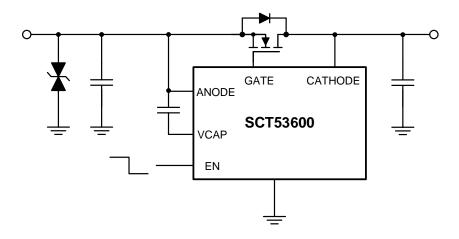
Charge Pump

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APPLICATION INFORMATION

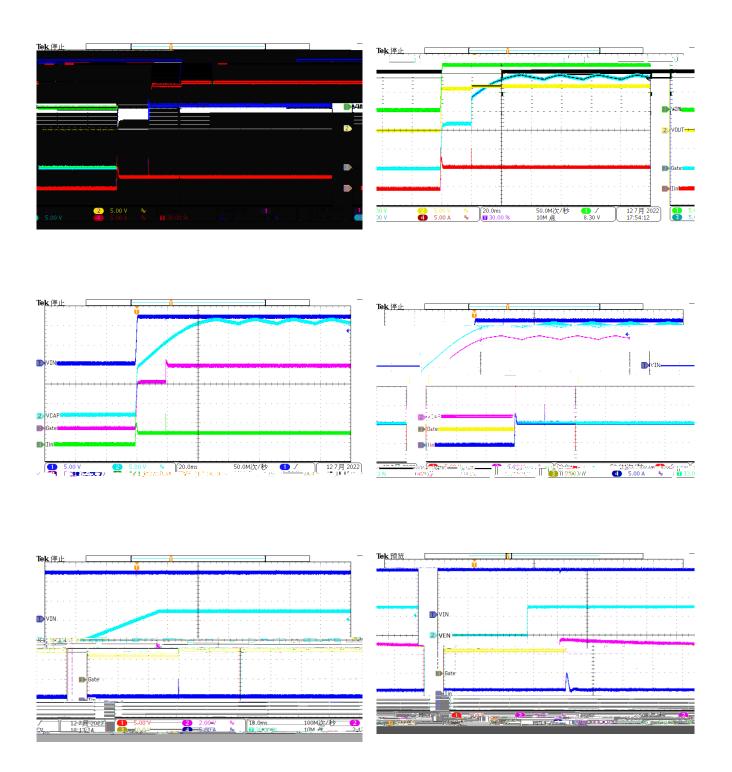
Typical Application- Reverse Polarity Protection

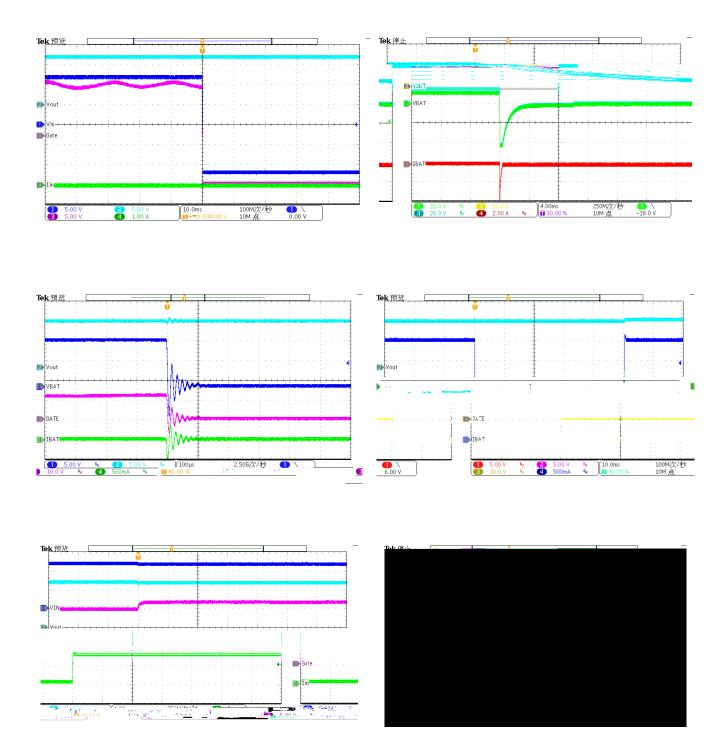


Design Parameters

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



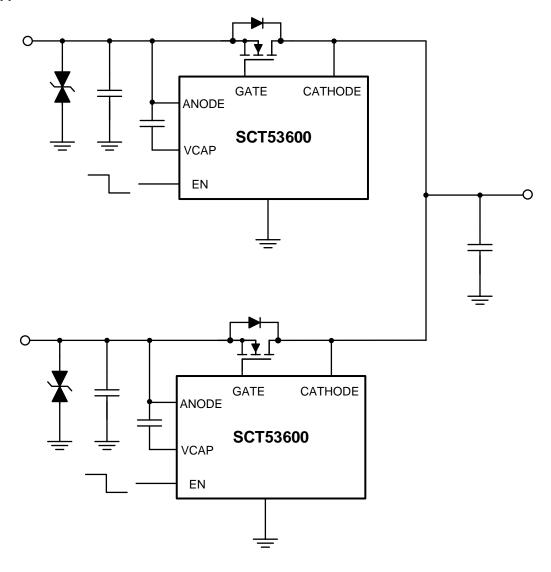






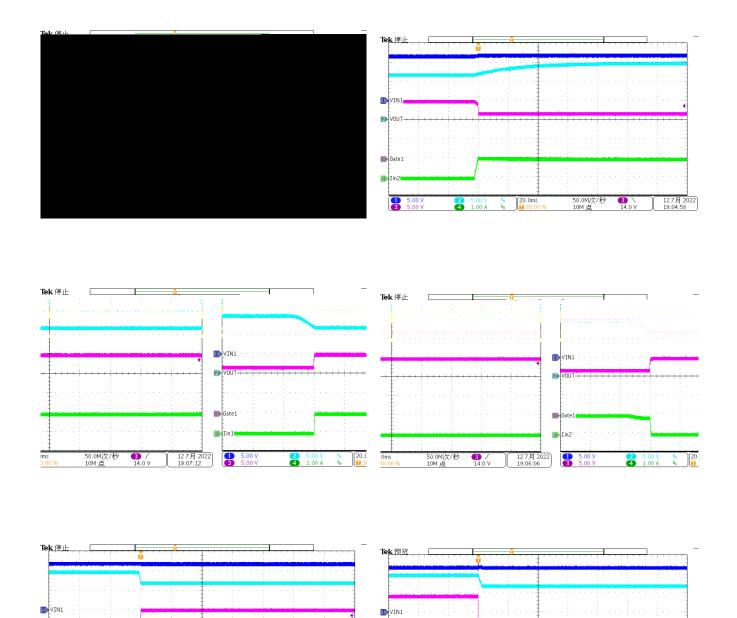
APPLICATION INFORMATION

Typical Application- Redundant Power





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PACKAGE INFORMATION

TAPE AND REEL INFORMATION

