

February 2, 1998

TEL:805-498-2111 FAX:805-498-3804 WEB:http://www.semtech.com

## DESCRIPTION

The SC1714 is a 3-terminal negative voltage regulator with an output voltage rated at 3.3V below the positive supply voltage. Designed to be an improved plug in replacement for the BA714, it offers a low typical supply current of 12 $\mu$ A, a high output current sinking capability of 5mA, and a low negative temperature coefficient. It also features output overload protection. The SC1714 is ideal as a power source for liquid crystal displays.

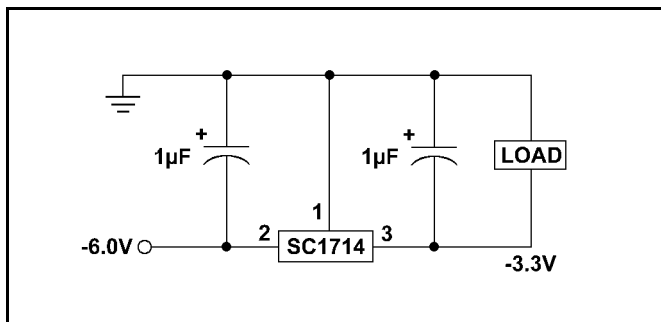
## FEATURES

- Low power supply current.
- Low negative TC.
- High output sinking capability.
- Output overload protection.

## APPLICATIONS

- Printing calculators
- Cameras
- Voltage reference for instrumentation

## TYPICAL APPLICATION CIRCUIT



## ORDERING INFORMATION

DEVICE <sup>(1)</sup>	PACKAGE
SC1714ZS5	TO-92

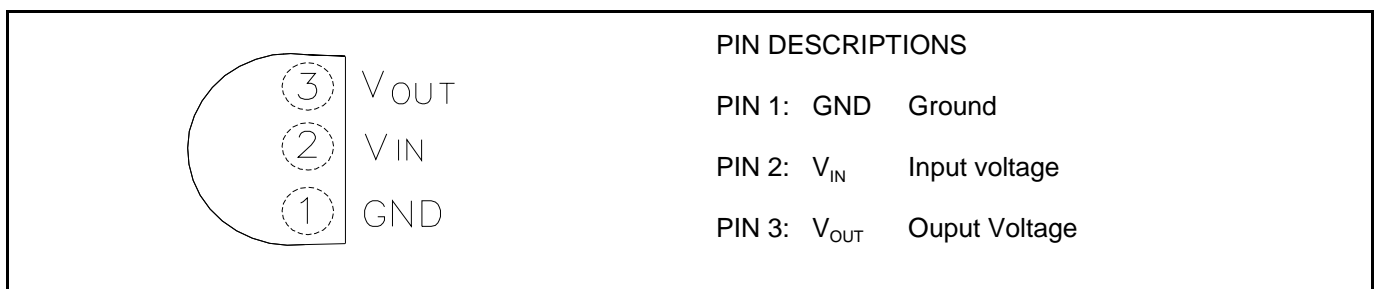
Note:

(1) Add suffix 'TR' for tape and reel.

## ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Maximum	Units
Supply Voltage	$V_{CC}$	12.5	V
Power Dissipation	$P_D$	300	mW
Operating Temperature Range	$T_A$	-25 to 75	$^{\circ}$ C
Storage Temperature Range	$T_{STG}$	-55 to 125	$^{\circ}$ C
Output Current	$I_{OUT}$	50	mA

## PIN CONFIGURATION



### PIN DESCRIPTIONS

PIN 1: GND Ground

 PIN 2:  $V_{IN}$  Input voltage

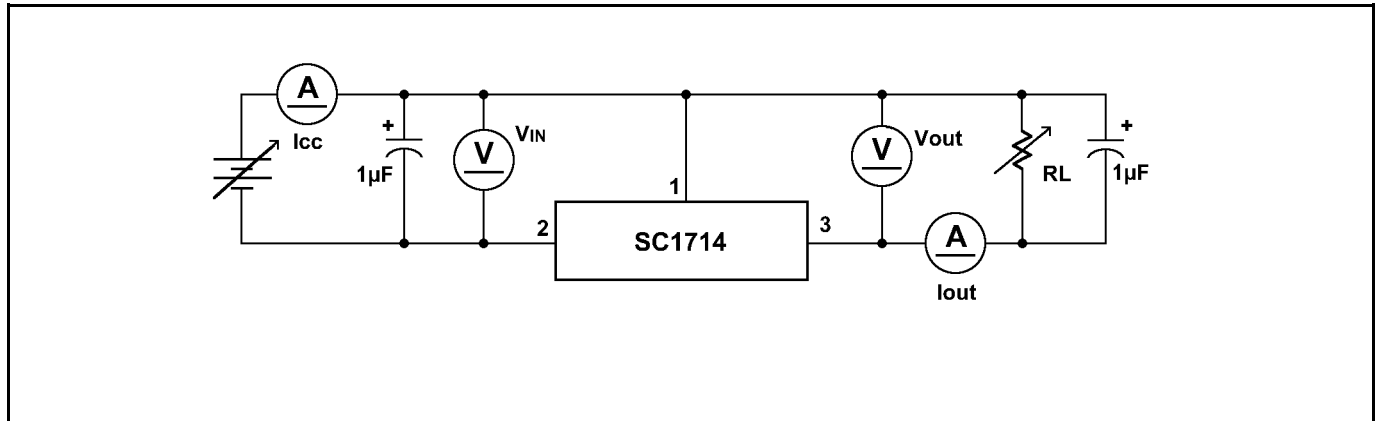
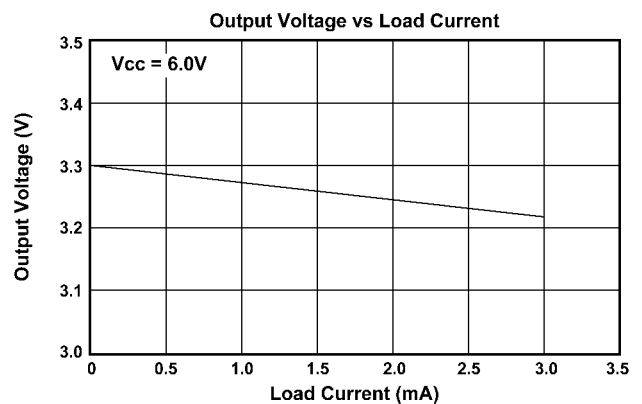
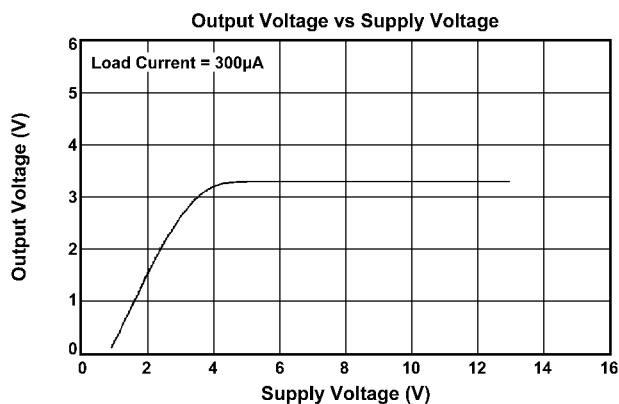
 PIN 3:  $V_{OUT}$  Output Voltage

February 2, 1998

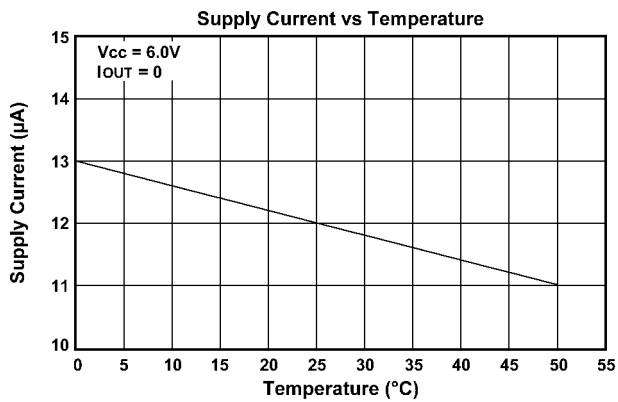
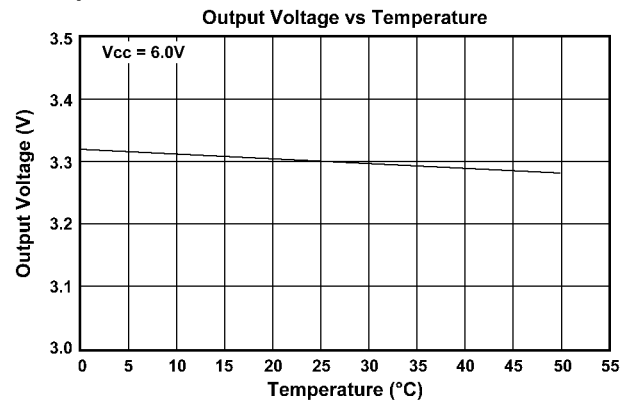
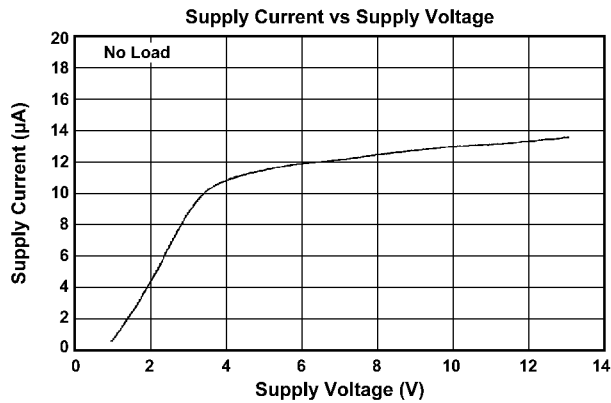
**ELECTRICAL CHARACTERISTICS**

 Unless otherwise specified,  $T_A = 25^\circ\text{C}$ ,  $V_{CC} = 6.0\text{V}$ 

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Output Voltage	$V_{OUT}$	$V_{CC} = 4-12\text{V}$ , $I_{OUT} = 50-300\mu\text{A}$ $T_A = 0^\circ\text{C}-40^\circ\text{C}$	3.2		3.4	V
Supply Current	$I_{CC}$	$R_L = \infty$		12	17	$\mu\text{A}$
Output Voltage to Supply Voltage Ratio	$V_{OUT}/V_{CC}$	$R_L = \infty$		1		mV/V
Output Short Circuit Current	$I_{OS}$			5	10	mA

**TEST CIRCUIT**

**TYPICAL PERFORMANCE CHARACTERISTICS**


February 2, 1998

**TYPICAL PERFORMANCE CHARACTERISTICS (cont.)**

**DEVICE OUTLINE - TO-92**
