



FEATURES

- Low Power Consumption.
- Low Temperature Coefficient.
- Output Short Circuit Protected.
- Wide Operating Voltage Range.
- Good Input Stability.
- Space-Saving Package: TO-92 or SOT-89

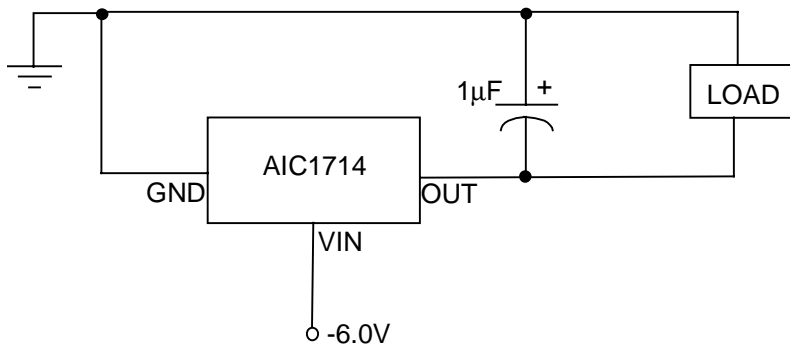
APPLICATIONS

- LCD for Printing Calculators
- Cameras
- Voltage References for Instrumentation

DESCRIPTION

The AIC1714 is a series of 3-terminal negative voltage regulators with output voltages internally set below the positive supply voltage. Since the AIC1714 consumes less current and only requires a small input/output voltage difference than existing industry standard 3-terminal voltage regulators, a battery-powered portable equipment is afforded a high capacity and longer service life. The AIC1714 is ideal for power source of liquid crystal displays.

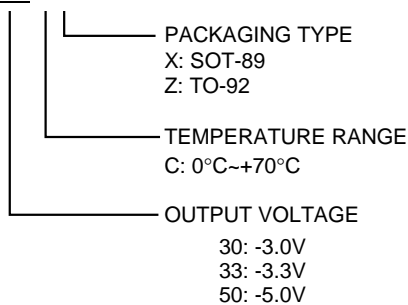
TYPICAL APPLICATION CIRCUIT



Negative Voltage Regulator

ORDERING INFORMATION

AIC1714-XX-XX



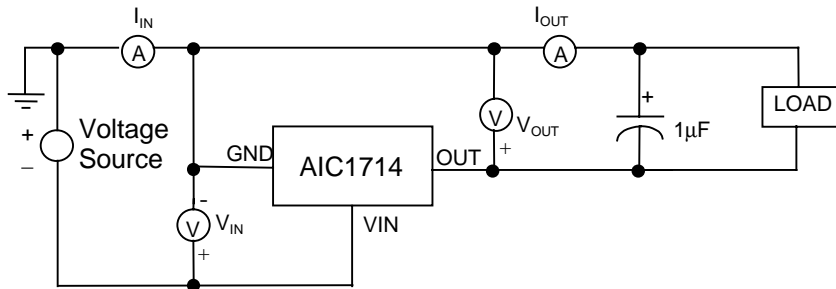
ORDER NUMBER	PIN CONFIGURATION
AIC1714-30CX AIC1714-33CX AIC1714-50CX (SOT-89)	FRONT VIEW 1: VIN 2: GND 3: VOUT
AIC1714-30CZ AIC1714-33CZ AIC1714-50CZ (TO-92)	TOP VIEW 1: GND 2: VIN 3: VOUT



ABSOLUTE MAXIMUM RATINGS

Supply Voltage	-13V
Operating Temperature Range	- 20°C~80°C
Storage Temperature Range	- 65°C~150°C
Power Dissipation	SOT-89 Package 0.80W
	TO-92 Package 0.78W

TEST CIRCUIT

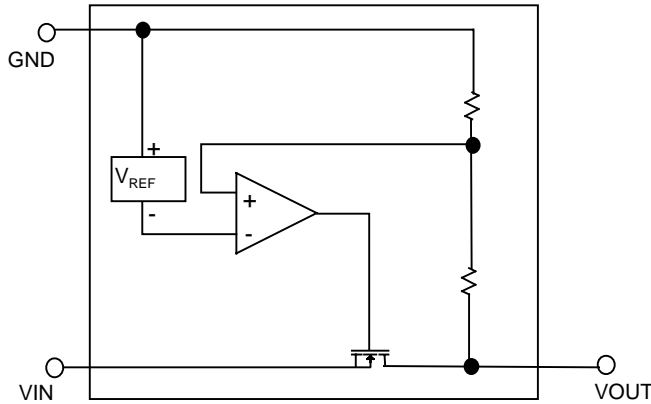


ELECTRICAL CHARACTERISTICS (V_{IN}= -6.0V, T_a=25°C, unless otherwise specified.)

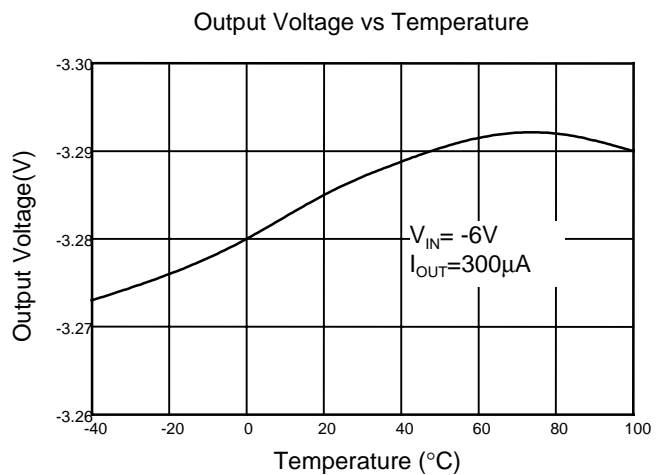
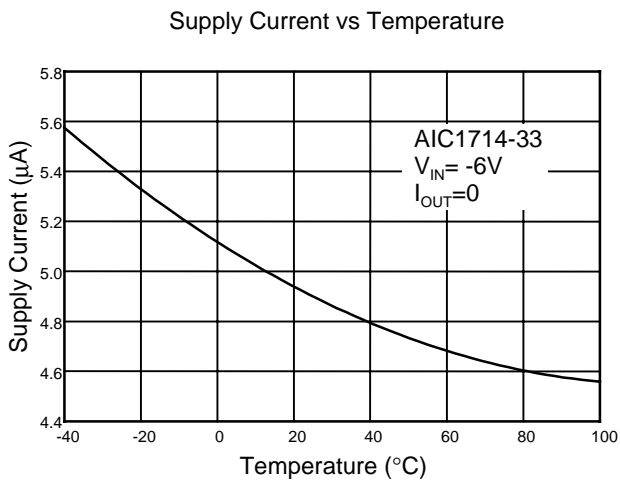
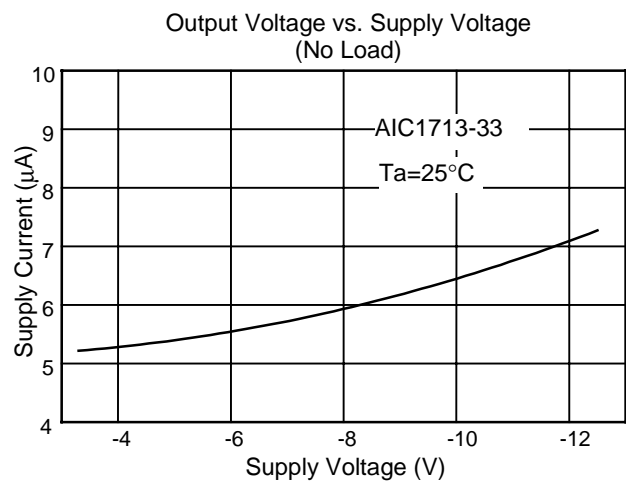
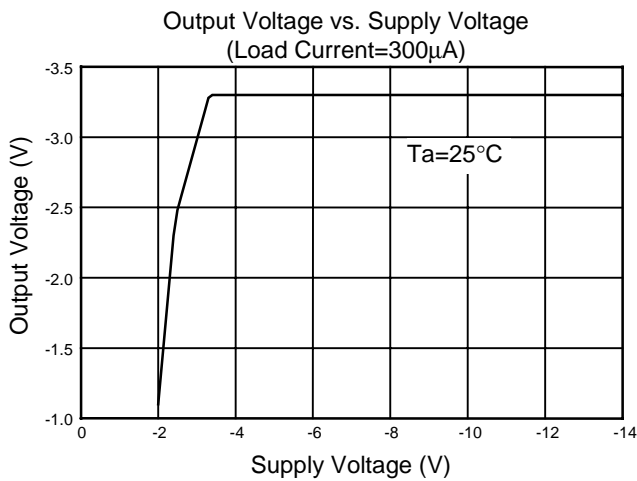
PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Output Voltage	I _{OUT} =300µA	AIC1714-30	-2.95	-3.0	-3.05	V
		AIC1714-33	-3.25	-3.3	-3.35	V
		AIC1714-50	-4.93	-5.0	-5.07	V
Load Regulation	I _{OUT} =0~5mA	ΔV _{OUT}		20	100	mV
I/O Voltage Difference	I _{OUT} =300µA	V _{DIFF}		50	200	mV
Supply Current	I _{OUT} =0	I _{IN}		6	12	µA
Input Stability		$\frac{\Delta V_{OUT}}{\Delta V_{IN} \cdot V_{OUT}}$		0.05		%/ V
Temperature Coefficient	-25°C~85°C	T _C		50		ppm
Output Short Circuit Current	R _{LOAD} =0		15	24		mA



■ BLOCK DIAGRAM



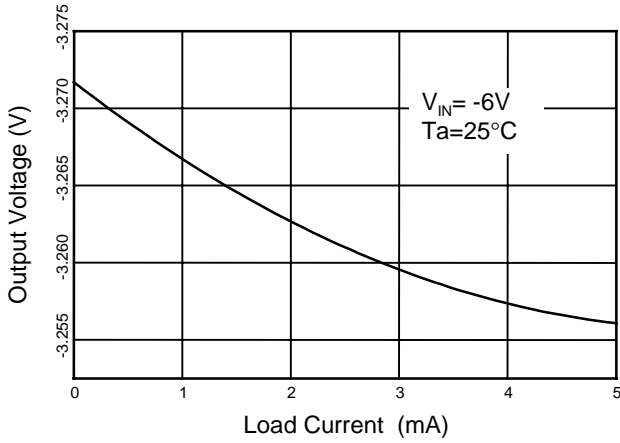
■ TYPICAL PERFORMANCE CHARACTERISTICS





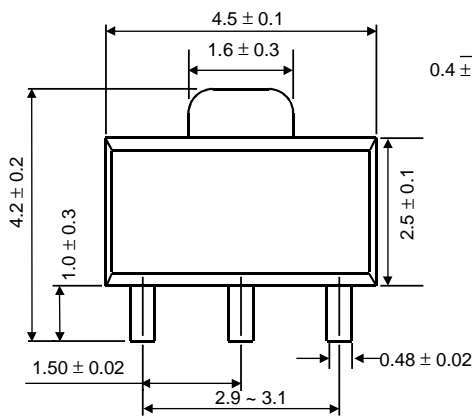
TYPICAL PERFORMANCE CHARACTERISTICS (CONTINUED)

Output Voltage vs Load Current

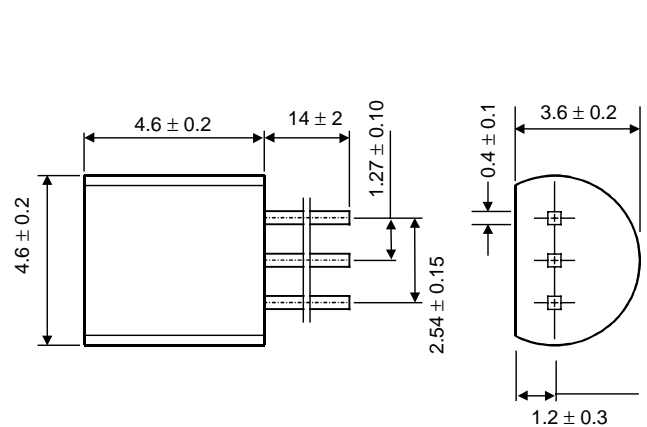


PHYSICAL DIMENSIONS

● SOT-89



● TO-92



UNIT: mm

● SOT89 Marking

Part No.	Marking
AIC1714-30	AP30
AIC1714-33	AP33
AIC1714-50	AP50