

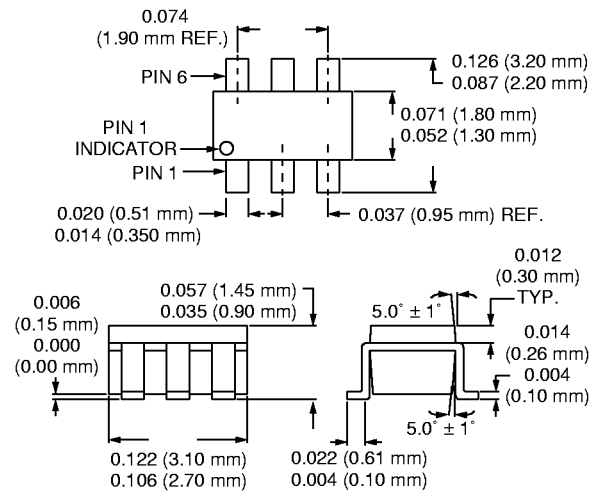
Features

- Converts a Positive Voltage Into a Negative Voltage
- Ideal for Providing Gate Voltage Bias for GaAs Products
- Ultra Small SOT-6 Package
- Only Three Capacitors Required as Additional Components
- High Oscillating Frequency (600 kHz) Enables the Use of Low Cost Ceramic Components
- Available with Some of Alpha's Power Products in a Single Package*

Description

The AM100-73 is a low cost, switched capacitor voltage converter. Its no-load, inverted output voltage follows the input voltage over a 2-7 V range. The high operating frequency of the AM100-73 permits the use low cost ceramic capacitors and facilitates filtering. Applications include portable and mobile voltage conversion, GaAs amplifier biasing, automatic power control and LCD negative supply.

SOT-6



Absolute Maximum Ratings

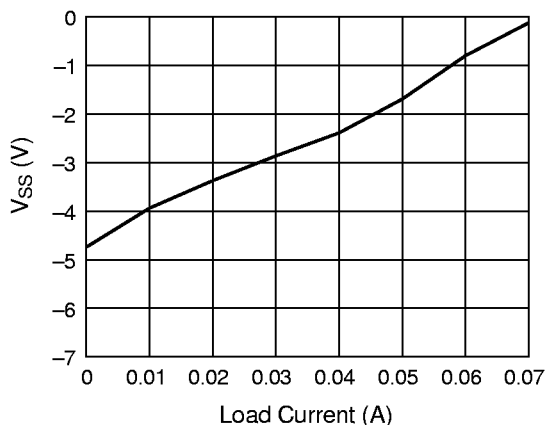
Parameter	Value	Unit
Supply Voltage	10	V
Output Short Circuit Duration	10	Sec.
Operating Temperature	-40 to +100	°C
Storage Temperature	-65 to +150	°C

Operating Characteristics at 25°C

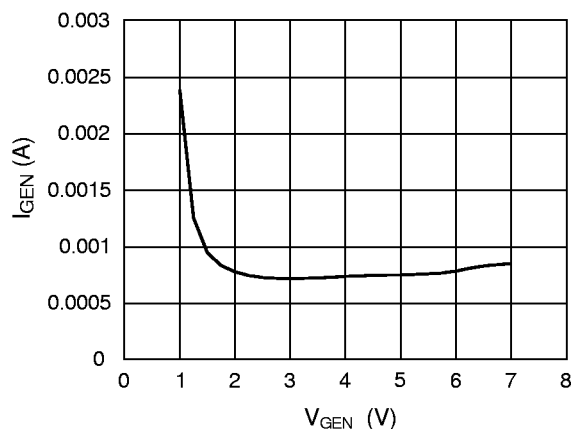
Parameter ¹	Symbol	Condition	Min.	Typ.	Max.	Unit
Supply Voltage	V _{GEN}		2		7	V
Supply Current	I _{GEN}	V _{GEN} = 3.5 V I _{LOAD} = 3.5 mA	-3.15			μA
Output Voltage	V _{SS}	V _{GEN} = 3.5 V I _{LOAD} = 3.5 mA		-3.15		V
Oscillation Frequency	F _{OSC}			600		kHz
Output Impedance	R _o			70		Ω
Current Efficiency				80		%
Voltage Conversion Efficiency		V _{GEN} = 3.5 V I _{LOAD} = 0.0 mA		95		%

1. All measurements made in a 50 Ω system, unless otherwise specified.

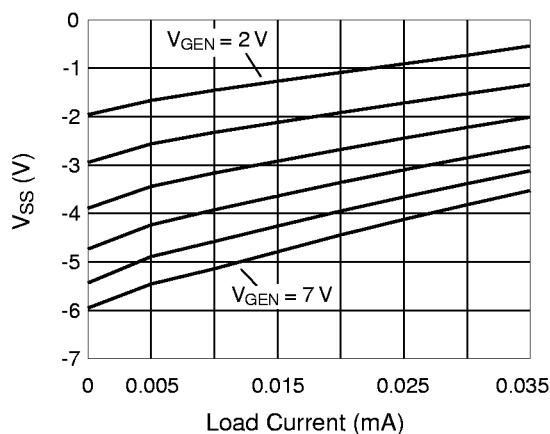
Typical Performance Data at 25°C



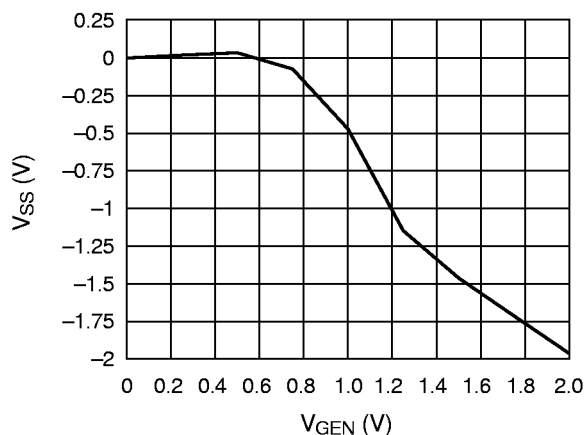
Output Voltage vs. Load Current
 $V_{GEN} = 5\text{ V}$



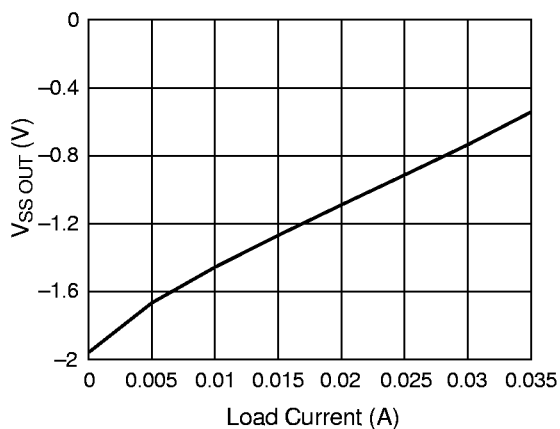
Supply Current vs. Supply Voltage
 $I_{SS} = 0\text{ mA}$



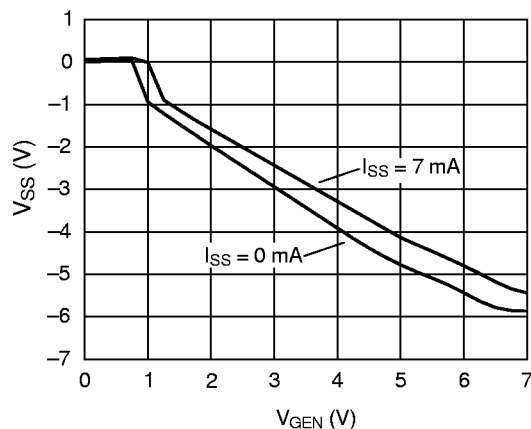
Output Voltage vs. Load Current
 $V_{GEN} = 2\text{ V to } 7\text{ V}$



Output Voltage vs. Supply Voltage
 $I_{SS} = 0\text{ mA}$



Output Voltage vs. Load Current
 $V_{GEN} = 2\text{ V}$



Output Voltage vs. Supply Voltage
 $I_{SS} = 0\text{ mA and } 7\text{ mA}$

Pin Configuration

Terminal	Symbol	Description
1	V _{GEN}	Positive Input Voltage
2	GND	Ground
3	GND	Ground
4	C _A	Charge Pump Capacitor P _{IN} A
5	C _B	Charge Pump Capacitor P _{IN} B
6	V _{OUT}	Negative Output Voltage

Pin Out

