

LT1761 Series

The top resistor of the resistor divider must be chosen to limit the current into the ADJ pin to less than 5mA when the ADJ pin is at 7V. The 13V difference between output and ADJ pin divided by the 5mA maximum current into the ADJ pin yields a minimum top resistor value of 2.6k.

In circuits where a backup battery is required, several different input/output conditions can occur. The output voltage may be held up while the input is either pulled to ground, pulled to some intermediate voltage or is left open circuit. Current flow back into the output will follow the curve shown in Figure 6.

When the IN pin of the LT1761-X is forced below the OUT pin or the OUT pin is pulled above the IN pin, input current will typically drop to less than 2μA. This can happen if the input of the device is connected to a discharged (low voltage) battery and the output is held up by either a

backup battery or a second regulator circuit. The state of the SHDN pin will have no effect on the reverse output current when the output is pulled above the input.

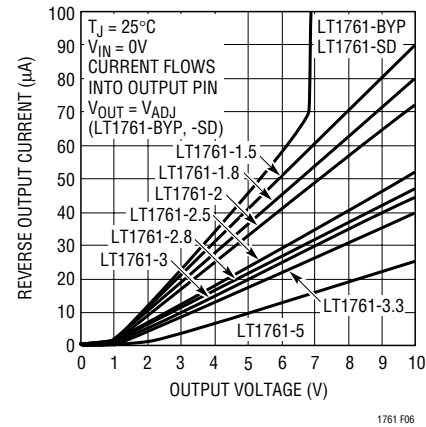
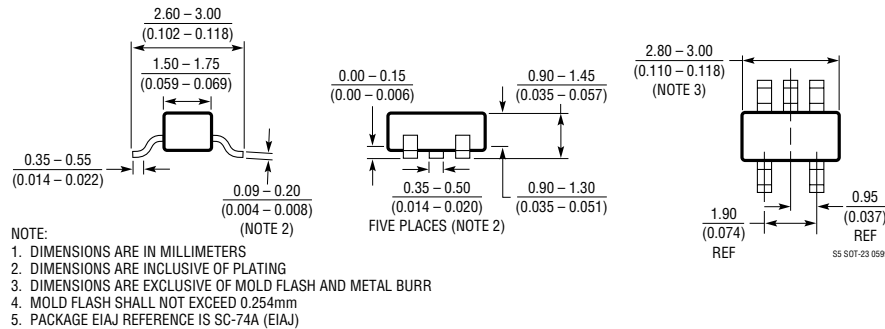


Figure 6. Reverse Output Current

PACKAGE DESCRIPTION

Dimensions in inches (millimeters) unless otherwise noted.

S5 Package
5-Lead Plastic SOT-23
(LTC DWG # 05-08-1633)



RELATED PARTS

PART NUMBER	DESCRIPTION	COMMENTS
LT1120	125mA Low Dropout Regulator with 20μA I _Q	Includes 2.5V Reference and Comparator
LT1121	150mA Micropower Low Dropout Regulator	30μA I _Q , SOT-223 Package
LT1129	700mA Micropower Low Dropout Regulator	50μA Quiescent Current
LT1175	500mA Negative Low Dropout Micropower Regulator	45μA I _Q , 0.26V Dropout Voltage, SOT-223 Package
LT1521	300mA Low Dropout Micropower Regulator with Shutdown	15μA I _Q , Reverse Battery Protection
LT1529	3A Low Dropout Regulator with 50μA I _Q	500mV Dropout Voltage
LT1762 Series	150mA, Low Noise, LDO Micropower Regulator	25μA Quiescent Current, 20μV _{RMS} Noise
LT1763 Series	500mA, Low Noise, LDO Micropower Regulator	30μA Quiescent Current, 20μV _{RMS} Noise
LTC1928	Doubler Charge Pump with Low Noise Linear Regulator	Low Output Noise: 60μV _{RMS} (100kHz BW)
LT1962 Series	300mA, Low Noise, LDO Micropower Regulator	30μA Quiescent Current, 20μV _{RMS} Noise
LT1963	1.5A, Low Noise, Fast Transient Response LDO	40μV _{RMS} , SOT-223 Package
LT1764	3A, Low Noise, Fast Transient Response LDO	40μV _{RMS} , 340mV Dropout Voltage
LTC3404	High Efficiency Synchronous Step-Down Switching Regulator	Burst Mode™ Operation, Monolithic, 100% Duty Cycle

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