

CS8126

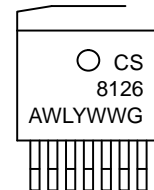
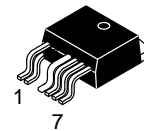
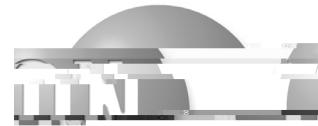
5.0 V, 750 mA Low Dropout Linear Regulator with Delayed RESET

The CS8126 is a low dropout, high current 5.0 V linear regulator. It is an improved replacement for the CS8156. Improvements include higher accuracy, tighter saturation control, better supply rejection, and enhanced $\overline{\text{RESET}}$ circuitry. Familiar PNP regulator features such as reverse battery protection, overvoltage shutdown, thermal shutdown, and current limit make the CS8126 suitable for use in automotive and battery operated equipment. Additional on chip filtering has been included to enhance rejection of high frequency transients on all external leads.

An active microprocessor $\overline{\text{RESET}}$ function is included on chip with externally programmable delay time. During power up, or after detection of any error in the regulated output, the $\overline{\text{RESET}}$ lead will remain in the low state for the duration of the delay. Types of errors include short circuit, low input voltage, overvoltage shutdown, thermal shutdown, or others that cause the output to become unregulated. This function is independent of the input voltage and will function correctly with an output voltage as low as 1.0 V. Hysteresis is included in both the reset and Delay comparators for enhanced noise immunity. A latching discharge circuit is used to discharge the Delay capacitor, even when triggered by a relatively short fault condition. This circuit improves upon the commonly used SCR structure by providing full capacitor discharge (0.2 V type).

Note: The CS8126 is lead compatible with the LM2927 and LM2926.

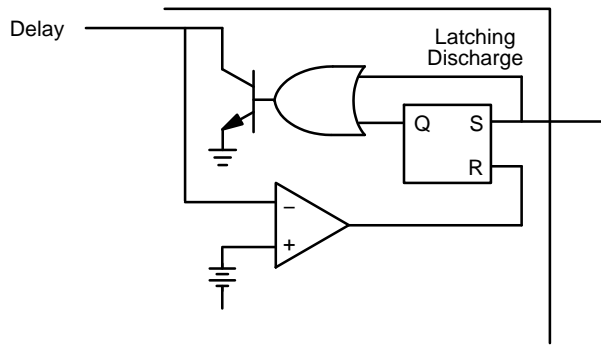
- Low Dropout Voltage (0.6 V at 0.5 A)
- 3.0% Output Accuracy
- Active $\overline{\text{RESET}}$
- External $\overline{\text{RESET}}$ Delay for Reset
- Protection Circuitry
 - Reverse Battery Protection
 - +60 V, 50 V Peak Transient Voltage
 - Short Circuit Protection
 - Internal Thermal Overload Protection
- These are Pb Free Devices



- Pin 1. V_{IN}
2. V_{OUT}
3. $V_{\text{OUT}}(\text{SENSE})$
4. GND
5. Delay
6. $\overline{\text{RESET}}$
7. NC

- A = Assembly Location
W = Wafer Lot
Y = Year
WW = Work Week
G = Pb-Free Device

*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.



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Power Dissipation	Internally Limited	-

100
90
80
70
60

0 100 200 300 400 500 600 700 800
Output Current (mA)

0 100 200 300 400 500 600 700 800
Output Current (mA)

The CS8126 $\overline{\text{RESET}}$ function, has hysteresis on both the

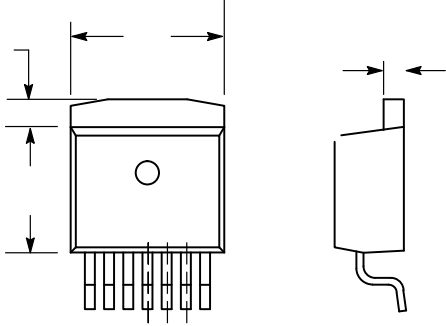


Step 1: Place the completed circuit with a tantalum capacitor of the recommended value in an environmental chamber at the lowest specified operating temperature and

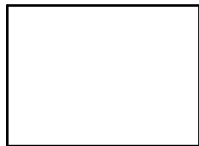


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CASE 936AB-01
ISSUE B

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	0.170	0.180	4.32	4.57
	0.000	0.010	0.00	0.25
	0.026	0.036	0.66	0.91
	0.017	0.026	0.43	0.66
	0.045	0.055	1.14	1.40
	0.325	0.368	8.25	9.53
	0.380	0.420	9.65	10.67
	0.050 BSC		1.27 BSC	
	0.539	0.579	13.69	14.71



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