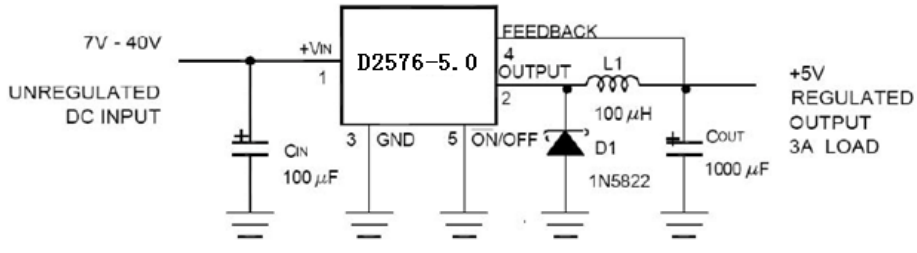



Product	D2576
Product Info	D2576 Series 3A Step-Down Voltage Regulator
Description	<p>The D2576 series of regulators are mono-lithic integrated circuits that provide all the active functions for a step-down (buck) switching regulator, capable of driving 3A load with excellent line and load regulation. These devices are available in fixed output voltages of 3.3V, 5V, 12V, 15V, and an adjustable output version. Requiring a minimum number of external components, these regulators are simple to use and include internal frequency compensation and a fixed-frequency oscillator. The D2576 series offers a high-efficiency re-placement for popular three-terminal linear regulators. It substantially reduces the size of the heat sink, and in some cases no heat sink is required. A standard series of inductors optimized for use with the D2576 are available from several different manufacturers. This feature greatly simplifies the design of switch-mode power supplies. Other features include a guaranteed $\pm 4\%$ tolerance on output voltage within specified input voltages and output load conditions, and 10% on the oscillator frequency. External shutdown is included, featuring 80 μA (typical) standby current. The output switch includes cycle-by-cycle current limiting. full protection under fault conditions.</p>
Features	<ul style="list-style-type: none"> ● 3.3V, 5V, 12V, 15V, and adjustable output versions ● Adjustable version output voltage range, 1.23V to 37V $\pm 4\%$ max over line and load conditions ● Guaranteed 3A output current ● Wide input voltage range, 40V ● Requires only 4 external components ● 52 kHz fixed frequency internal oscillator ● TTL shutdown capability, low power standby mode ● High efficiency ● Uses readily available standard inductors ● Thermal shutdown and current limit protection ● P+ Product Enhancement tested
Applications	<ul style="list-style-type: none"> ● Simple high-efficiency step-down (buck) regulator ● Efficient pre-regulator for linear regulators ● On-card switching regulators ● Positive to negative converter (Buck-Boost)

Typical Application	 <p style="text-align: center;">FIGURE 1.</p>
I_{OUT} (Max)	3 A
V_{IN} Range	40 V(max)
Y_{OUT}	ADJ / 12 / 5 / 3.3 V
Feed back Vol tage	1.23 V
Switch Frequency	50 kHz
Adjustable Output	1.23 to 37
Package	TO-220 & TO-263
Datasheet Download	 Click here to download datasheet
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