



Current limiter values
 For a 5 amp booster, current limit is 6 amps.
 $R27 = 0.1\text{ohms}$, $R26 = 0.47\text{ohms}$
 $Q6$ is FQP27P06 or similar. P channel MOSFET
 $ZD1$ is optional for supply voltages less than 20V.

- Note 1 R15 sets the switching delay for the MOSFETS. 22K is the minimum allowed.
- Note 2 R8 and C5 set the overload delay. Present values give about 30 milliseconds. With LK2 in, the delay is shortened to about 3 mSec.
- Note 3 The DC input can be increased to 30v if R14 and R18 are increased to 1K5. The limit is now set by the 7805 regulator input. Also uprate C9 and C15.
- Note 4 C12 and R19 are an output waveform filter. The values may need adjusting to give the best waveform.
- Note 5 Opto isolators U1 and U3, type TLP521-1A, KB814 or equivalent.
- Note 6 The value of R2 shown is for a DCC input voltage of 12 to 18V. If using a logic level drive, reduce R2 to 470 ohms.
- Note 7 LK1 allows for the addition of a thermal cutout on the current limiter if needed

LK3 and LK4 can select different current trip levels.
 Values for R31 and R32 to be chosen for the desired current levels.

DCC booster type NB1B

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Meter is 100uA
 1500 ohms type
 moving coil.
 Reads 10 amps
 full scale