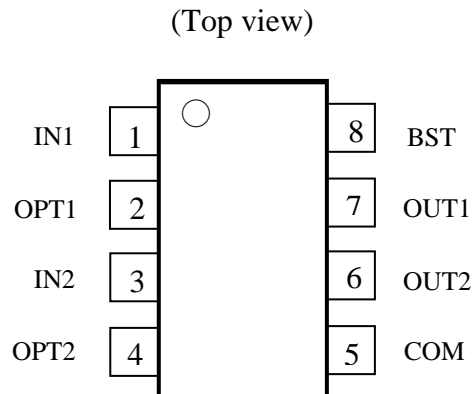




Pin descriptions



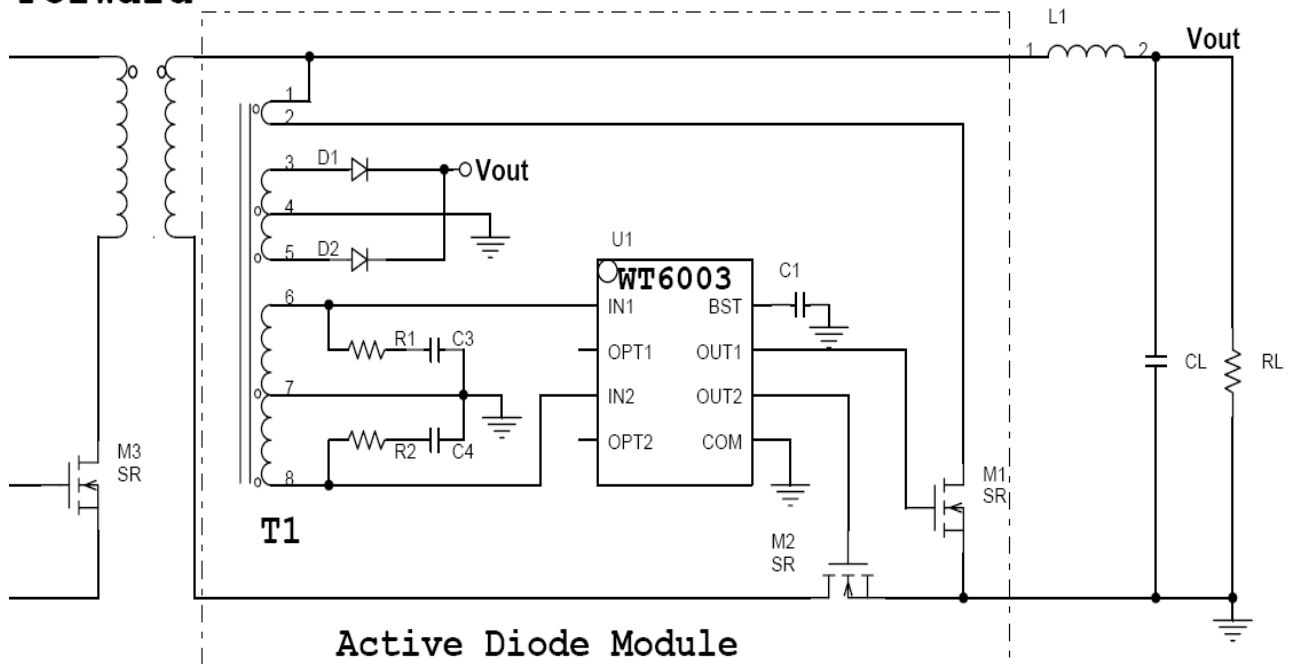
Pin	Symbol	Description
1	IN1	IC input. When IN1 is high, OUT1 is high.
2	OPT1	If necessary, a capacitor (recommend 100pf) can be connected from OPT1 to COM to filter input signal noise.
3	IN2	IC input. When IN2 is high, OUT2 is high.
4	OPT2	If necessary, a capacitor (recommend 100pf) can be connected from OPT2 to COM to filter out input noise.
5	COM	Common reference pin.
6	OUT2	IC output pin. Provide gate driving voltage for the rectifier MOSFET.
7	OUT1	IC output pin. Provide gate driving voltage for the freewheeling MOSFET.
8	BST	A 220nf capacitor should be connected from BST to COM.



Application circuit

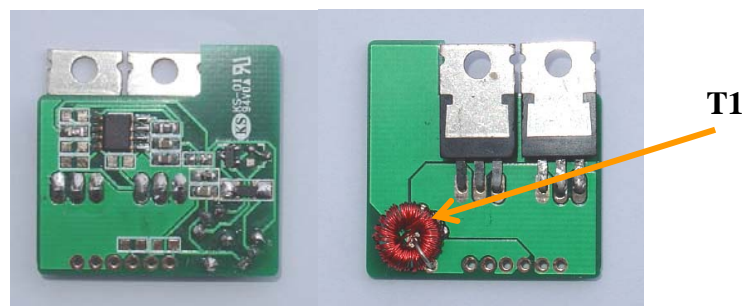
There is an external small toroid transformer used to sense current and provide driving signal for WT6003 chip.

Forward



Top View

Bottom View

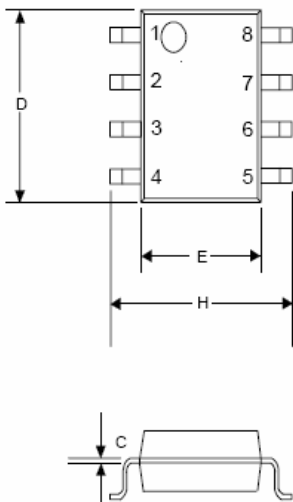


The Active Diode Module



Item	Description	Part number
T ₁	Toroid transformer	
	W1 : 1 turn (coupling coeff K 0.9 – 1)	
	W2 : 20 turns	
	W3 : 20 turns	
	W4 : 20 turns	
M ₁	Wide variety of Power MOSFET	IRF4710
M ₂	Wide variety of Power MOSFET	IRF4710
D ₁	Small signal diode	BAS16
D ₂	Schottky diode	SD1004
C ₁	Capacitor, 220nF	
C ₃	Capacitor, 3.3nF	
C ₄	Capacitor, 3.3nF	
R ₁	510ohm, adjustable if necessary	
R ₂	510ohm, adjustable if necessary	

Outline Drawing SOP-8



DIMENSIONS				
DIM ^N	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.0578	0.0681	1.47	1.73
A1	0.0040	0.0087	0.10	0.22
B	0.0138	0.0197	0.35	0.50
B1	0.050 BSC		1.27 BSC	
C	0.0071	0.0098	0.18	0.25
D	0.1897	0.1940	4.82	4.93
H	0.2299	0.2417	5.84	6.14
E	0.1500	0.1559	3.81	3.96