

Recommended Operating Conditions @ Tc=25°C

Symbol	Parameters	Condition	Ratings	Unit
Vcc	Driver Power supply voltage	Pin7	15	V
VIN	Driver Logic Input voltage	Pins 15, 17, 19, 21	0 to 5	V

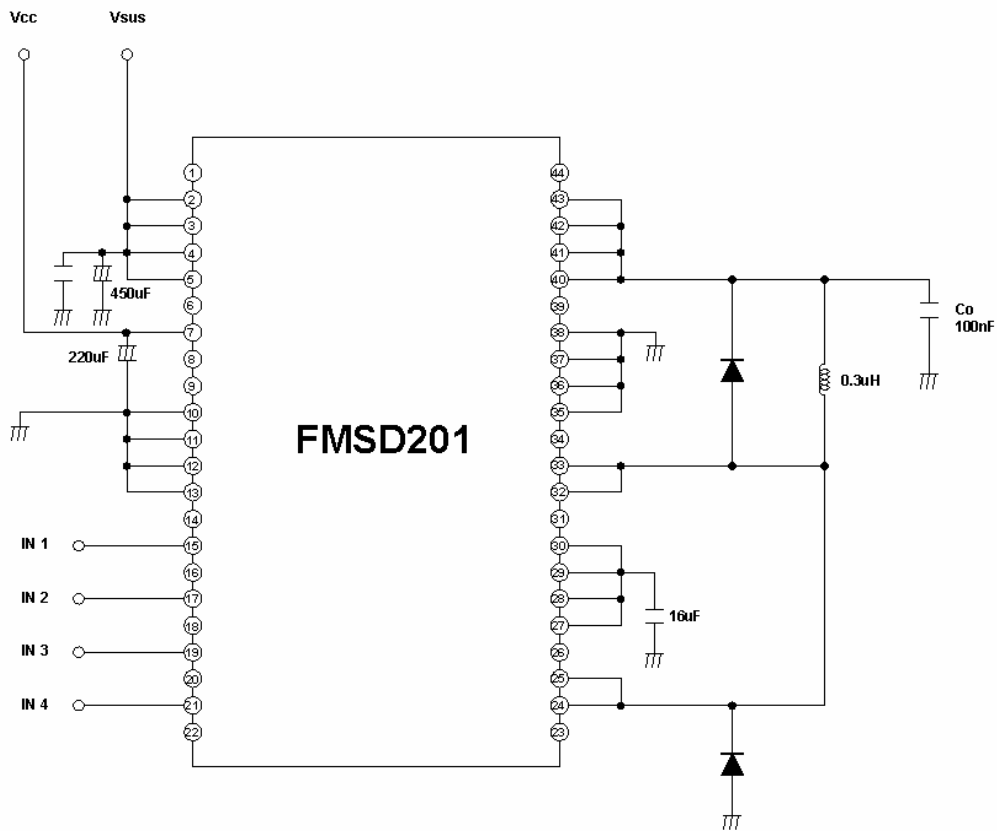
Electrical Characteristics @ Tc = 25°C (unless otherwise specified)

- Tc=25°C, V_{su}=100V, V_{cc}=15V, C_o=100nF (Test Circuit 1)
- Tc=25°C, V_{CE} = 5V, V_{cc}=15V, R_L= 25Ω (Test Circuit 2, 3)

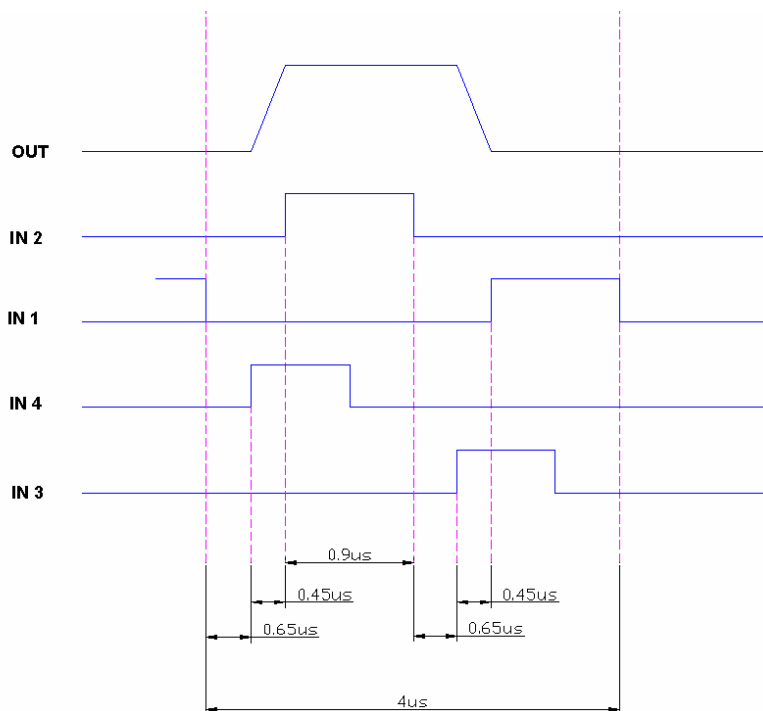
Symbol	Parameters	Test condition	Min	Typ	Max	Unit
V _{IH}	Driver Input High level Voltage	Each pins 15,17,19,21	3.0	-	-	V
V _{IL}	Driver Input Low level Voltage	Each pins 15,17,19,21	-	-	0.8	V
I _{SUS}	Power supply Current	Pins 2 to 5, Test circuit 1	-	-	330	mA
I _{CC}	Driver Power supply Current	Pin 7, V _{cc} =15V, Test circuit 1	-	-	210	mA
V _{CE1(SAT)}	IGBT saturation Voltage	Between pins 2 to 5 And pins 42,43 Between pins 40,41 And pins 35 to 38 I _{c1} =35A	-	-	1.3	V
V _{CE2(SAT)}	IGBT saturation Voltage	Between pins 29,30 And pins 32,33 Between pins 24,25 And pins 27,28 I _{c2} =25A	-	-	1.4	V
V _F	Diode Forward Voltage Drop	Between pins 2 to 5 And pins 42,43 Between pins 40,41 And pins 35 to 38 Between pins 29,30 And pins 32,33 Between pins 24,25 And pins 27,28 I _{FM} =20A	-	-	1.35	V
ton1	Turn On Delay Time	Pin17 → Pins 42,43	200	-	330	ns
ton2		Pin15 → Pins 40,41				
ton3		Pin21 → Pins 29,30				
ton4		Pin19 → Pins 24,25				
toff1	Turn Off Delay Time	Pin17 → Pins 42,43	260	-	380	ns
toff2		Pin15 → Pins 40,41				
toff3		Pin21 → Pins 29,30				
toff4		Pin19 → Pins 24,25				
I _{CE1}	IGBT and Diode Leakage Current	Pins 2 to4 → Pins 42,43	-	-	2	uA
I _{CE2}		Pins40,41 → Pins35to38				
I _{CE3}	IGBT Leakage Current	Pins29,30 → Pins 32,33	-	-	1	uA
I _{CE4}		Pins24,25 → Pins 27,28				
I _{R1}	Diode Leakage Current	Pins 32,33 → Pins 29,30	-	-	1	uA
I _{R2}		Pins 27,28 → Pins 24,25				

ICES1	IGBT and Diode Leakage Current @ Tc=125 °C	Pins 2 to4 → Pins 42,43	VCE=300V VGE=0V Test circuit 4 Tc=125 °C	-	-	200	uA
ICES2		Pins40,41 → Pins35to38					
ICES3	IGBT Leakage Current @ Tc=125 °C	Pins29,30 → Pins 32,33	VCE=300V VGE=0V Test circuit 4 Tc=125 °C	-	-	100	uA
ICES4		Pins24,25 → Pins 27,28					
IR1	Diode Leakage Current @ Tc=125 °C	Pins 32,33 → Pins 29,30	VR=300V Test circuit 4 Tc=125 °C	-	-	25	uA
IR2		Pins 27,28 → Pins 24,25					

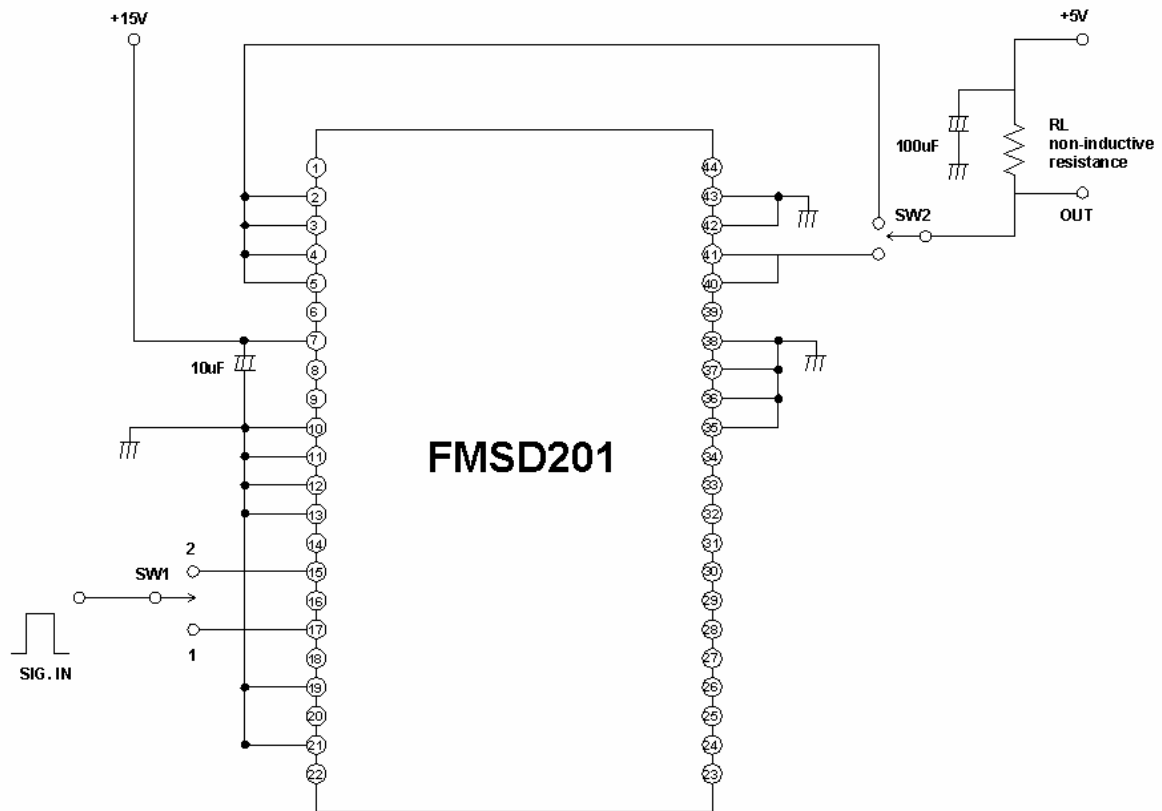
TEST CIRCUIT 1



TEST Timing Chart : VIH=5V, VIL=0V

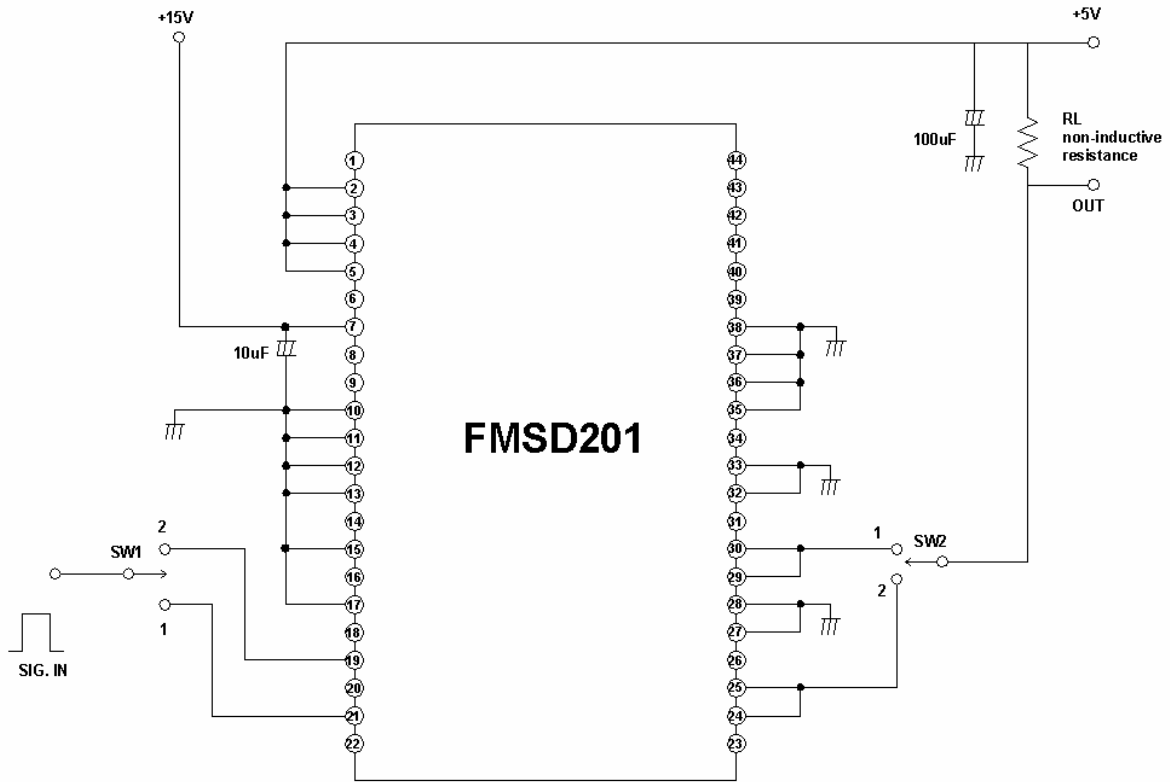


TEST CIRCUIT 2



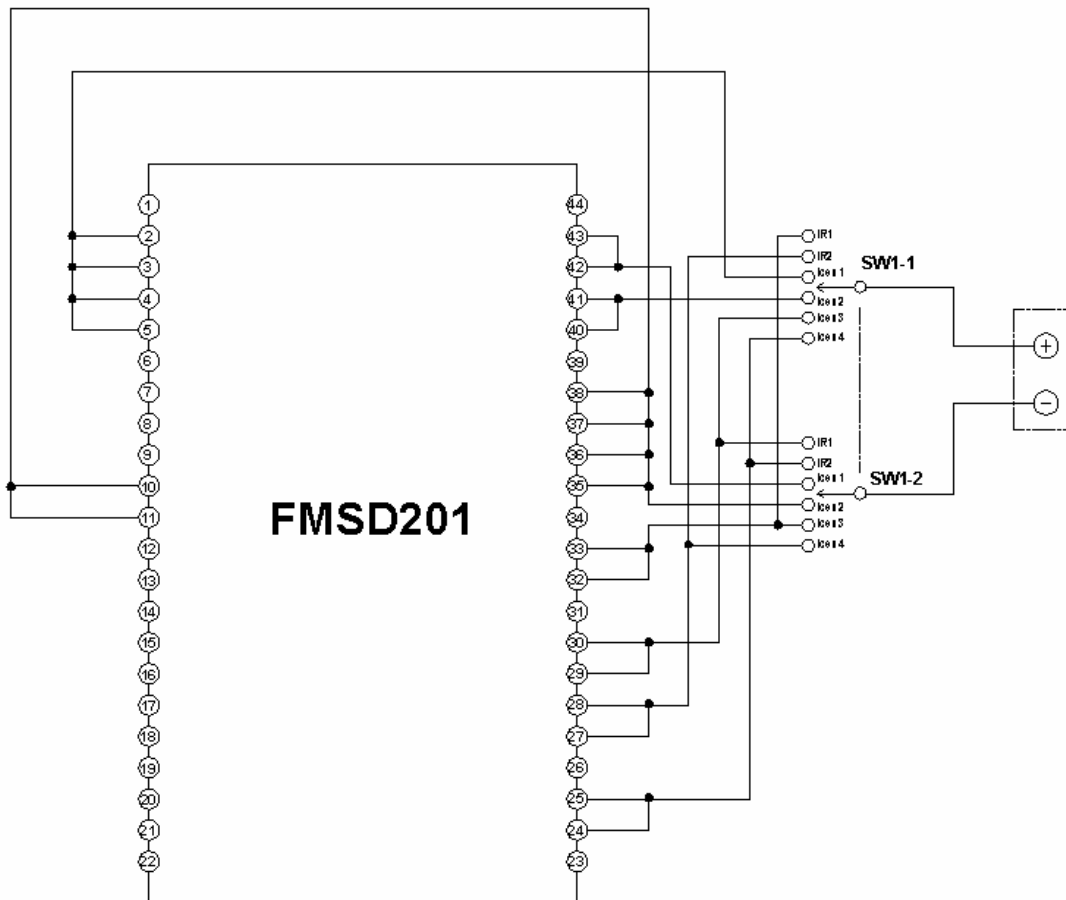
Symbol	Contents of test	SW1	SW2	RL
td(on)1	Turn on delay time between pin 17 and pins 42,43	1	1	25Ω
td(on)2	Turn on delay time between pin 15 and pins 40,41	2	2	
td(off)1	Turn off delay time between pin 17 and pins 42,43	1	1	25Ω
to(off)2	Turn off delay time between pin 15 and pins 40,41	2	2	

TEST CIRCUIT 3



Symbol	Contents of test	SW1	SW2	RL
td(on)3	Turn on delay time between pin 21 and pins 29,30	1	1	25Ω
td(on)4	Turn on delay time between pin 19 and pins 24,25	2	2	
td(off)3	Turn off delay time between pin 21 and pins 29,30	1	1	25Ω
to(off)4	Turn off delay time between pin 19 and pins 24,25	2	2	

TEST CIRCUIT 4



Symbol	Contents of test	SW1	Voltage
IR1	Leakage current between pins 32,33 and pins 29,30	IR1	300V
IR2	Leakage current between pins 27,28 and pins 24,25	IR2	300V
Ices1	Leakage current between pins 2 to 5 and pins 42,43	Ices1	300V
Ices2	Leakage current between pins 40,41 and pins 35 to 38	Ices2	300V
Ices3	Leakage current between pins 29,30 and pins 32,33	Ices3	300V
Ices4	Leakage current between pins 24,25 and pins 27,28	Ices4	300V

Package Dimensions (dimensions in milimeters)

