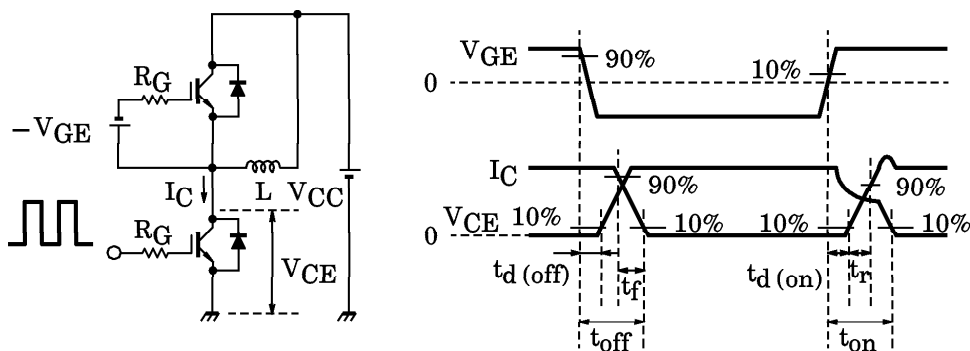




ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Gate Leakage Current	$I_{GES}$	$V_{GE} = \pm 20V, V_{CE} = 0$	—	—	$\pm 500$	nA	
Collector Cut-Off Current	$I_{CES}$	$V_{CE} = 600V, V_{GE} = 0$	—	—	1.0	mA	
Gate-Emitter Cut-Off Voltage	$V_{GE(OFF)}$	$I_C = 1mA, V_{CE} = 5V$	5.0	—	8.0	V	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10A, V_{GE} = 15V$	—	2.1	2.7	V	
Input Capacitance	$C_{ies}$	$V_{CE} = 20V, V_{GE} = 0, f = 1MHz$	—	720	—	pF	
Switching Time	Rise Time	$t_r$	Inductive Load $V_{CC} = 300V, I_C = 10A$ $V_{GG} = \pm 15V, R_G = 100\Omega$ (Note 1)			—	$\mu s$
	Turn-On Time	$t_{on}$					
	Fall Time	$t_f$					
	Turn-Off Time	$t_{off}$					
Peak Forward Voltage	$V_F$	$I_F = 10A, V_{GE} = 0$	—	—	2.0	V	
Reverse Recovery Time	$t_{rr}$	$I_F = 10A, di/dt = -100A/\mu s$	—	—	200	ns	
Thermal Resistance (IGBT)	$R_{th(j-c)}$	—	—	—	4.17	°C/W	
Thermal Resistance (Diode)	$R_{th(j-c)}$	—	—	—	4.9	°C/W	

(Note 1) Switching time measurement circuit and input/output waveforms



Switching loss measurement waveforms

