Ordering number : ENN7167

N-Channel IGBT

TIG002SS

Light-Controlling Strobe Applications

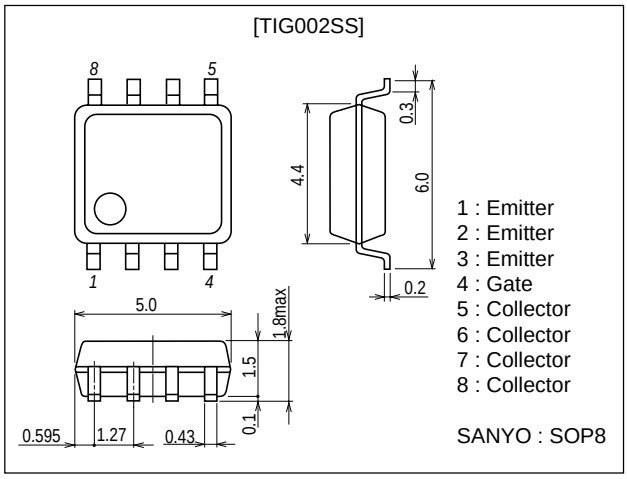
Features

- Low-saturation voltage.
- 4V drive.
- Enhansment type.

Package Dimensions

unit : mm

2203



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Emitter Voltage	V_{CES}		400	V
Gate-to-Emitter Voltage (DC)	V_{GES}		±6	V
Gate-to-Emitter Voltage (Pulse)	V_{GES}		±8	V
Collector Current (Pulse)	I_{CP}	PW≤500μs, duty cycle≤0.5%	150	A
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-40 to +150	°C

Electrical Characteristics at Ta=25°C

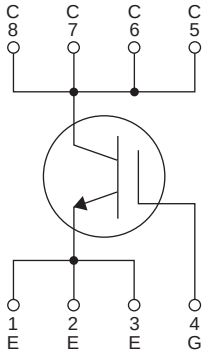
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CES}$	I_C=5mA, V_{GE}=0	400			V
Collector-to-Emitter Cutoff Current	I_{CES}	V_{CE}=320V, V_{GE}=0			10	μA
Gate-to-Emitter Leakage Current	I_{GES}	V_{GE}=±6V, V_{CE}=0			±100	nA
Gate-to-Emitter Cutoff Voltage	V_{GE}(off)	V_{CE}=10V, I_C=1mA	0.5		1.2	V
Collector-to-Emitter Saturation Voltage	V_{CE}(sat)1	I_C=150A, V_{GE}=4V		4.2	5.5	V
	V_{CE}(sat)2	I_C=60A, V_{GE}=2.5V		2.4	3.4	V
Input Capacitance	Cies	V_{CE}=10V, f=1MHz		3300		pF
Output Capacitance	Coes	V_{CE}=10V, f=1MHz		75		pF
Reverse Transfer Capacitance	Cres	V_{CE}=10V, f=1MHz		40		pF

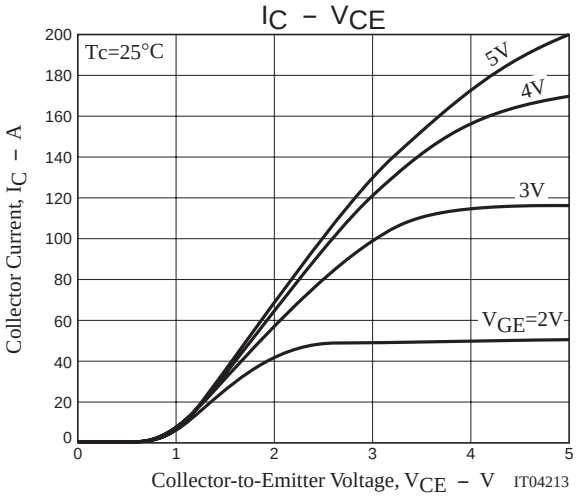
(Note) Handling the TIG002SS requires sufficient care to be taken because it has no protection diode between gate and emitter.

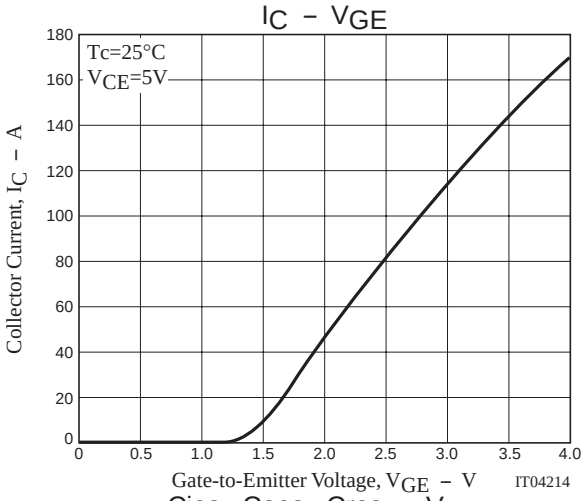
SANYO Electric Co.,Ltd. Semiconductor Company

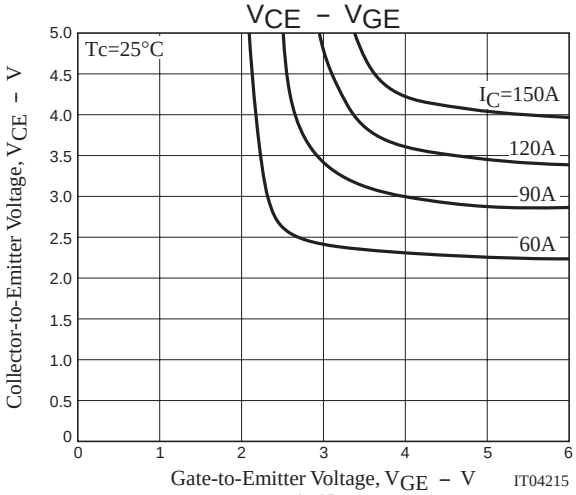
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

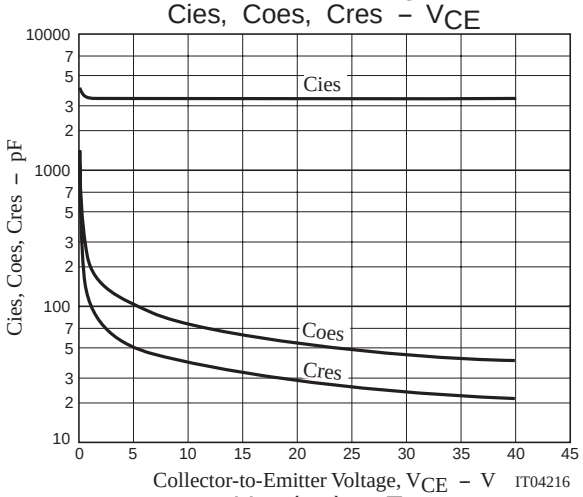
Elecl rical Connection

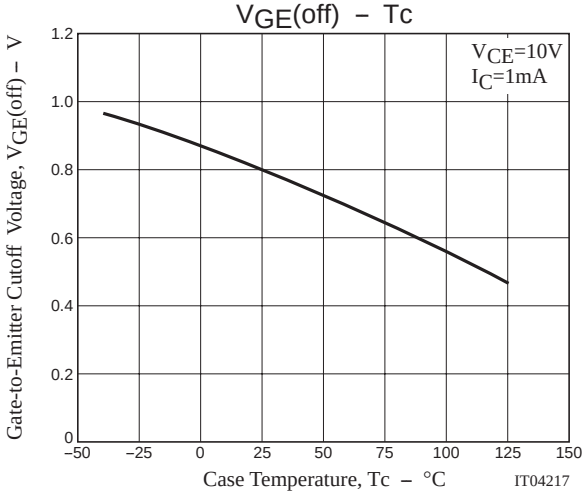


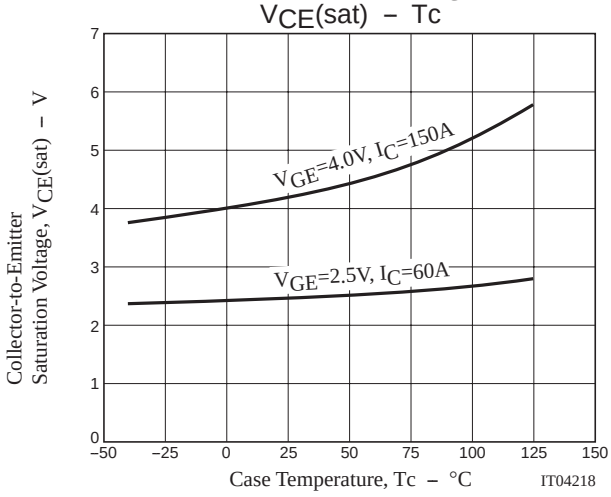


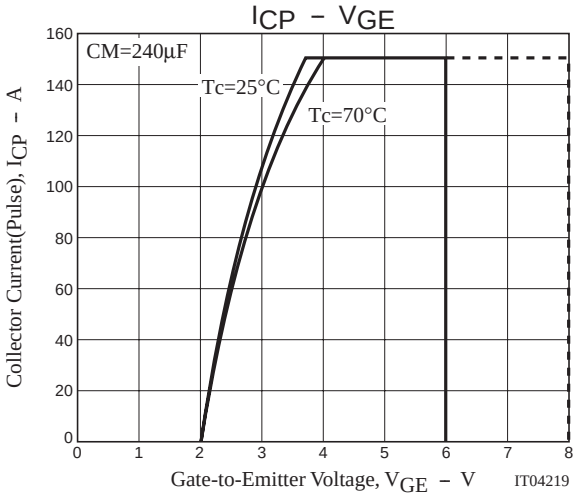


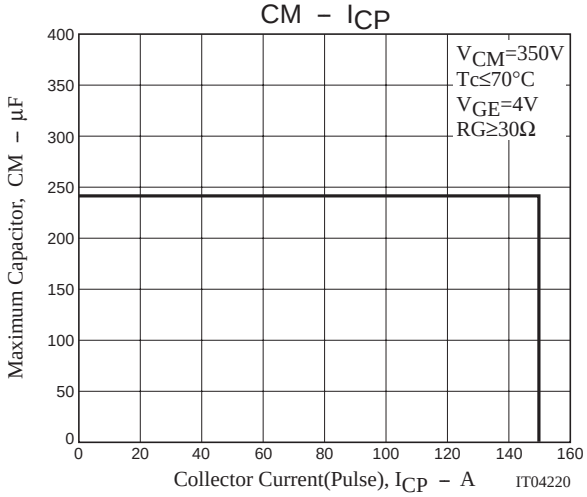












The gate series resistance R_G must be 30Ω or more to protect the device when it is turned off.