Ordering number : ENN7167

N-Channel IGBT

TIG002SS

Light-Controlling Strobe Applications

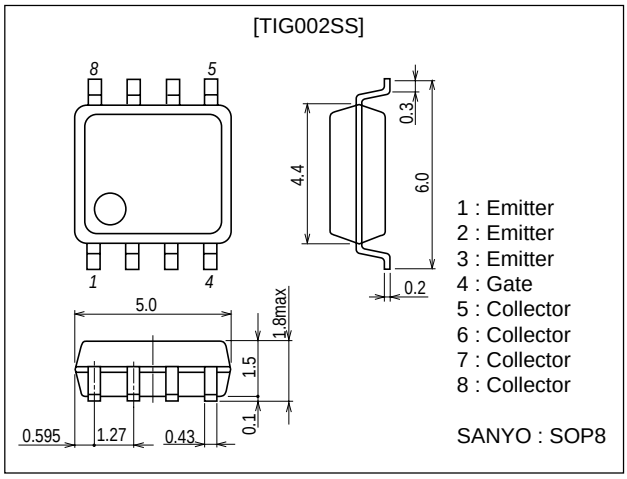
Features

- 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.

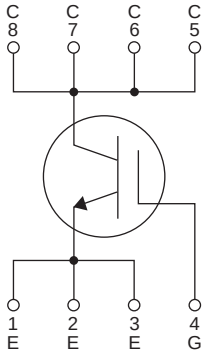
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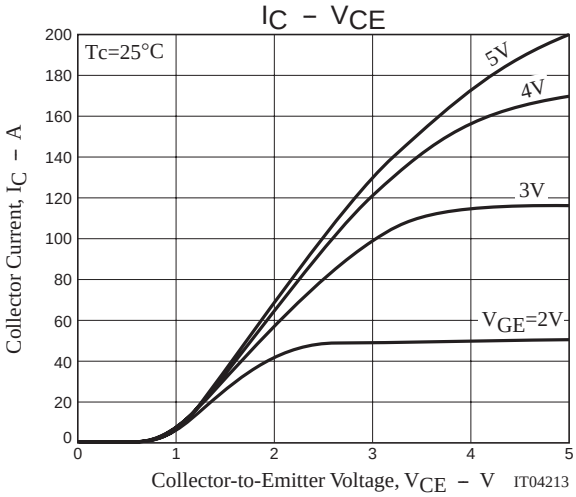
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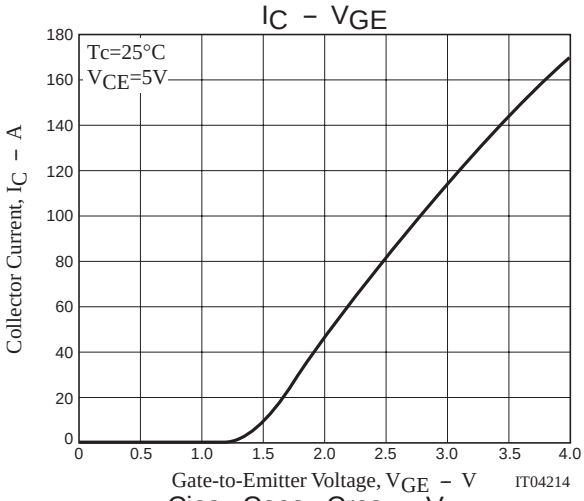
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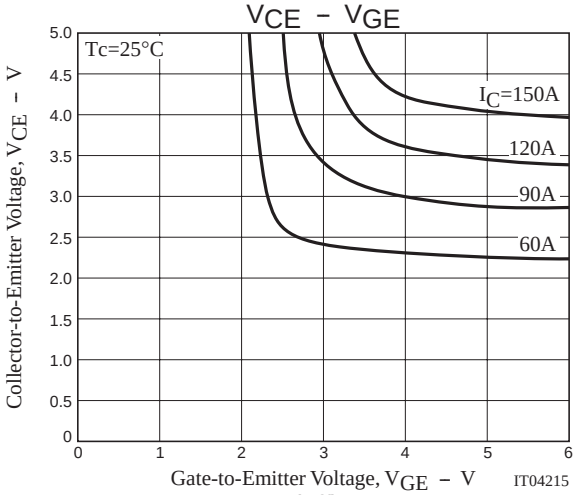
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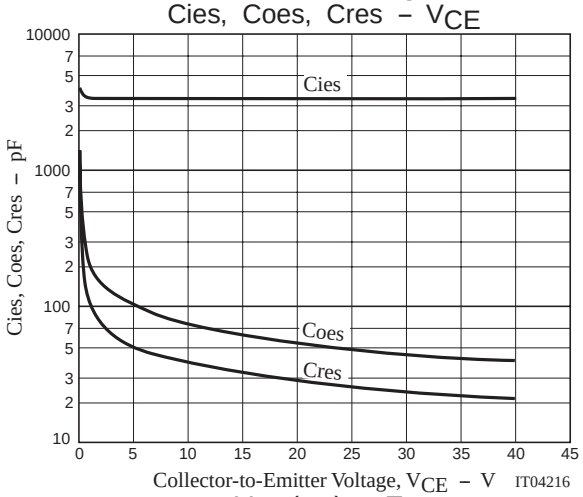
Elecl rical Connection

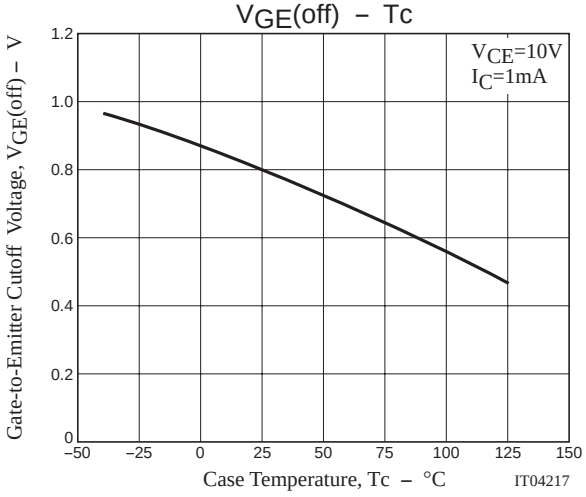


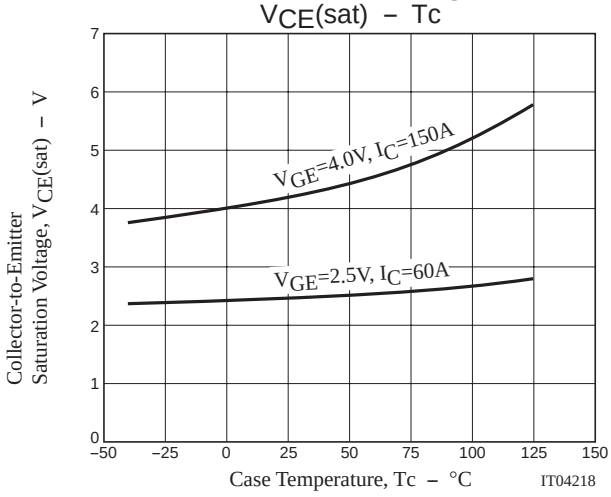


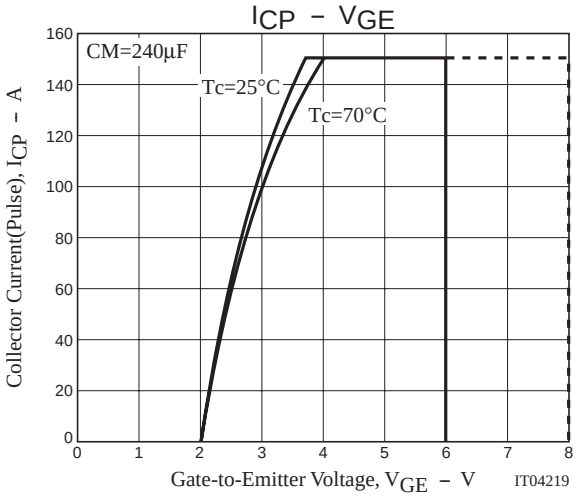


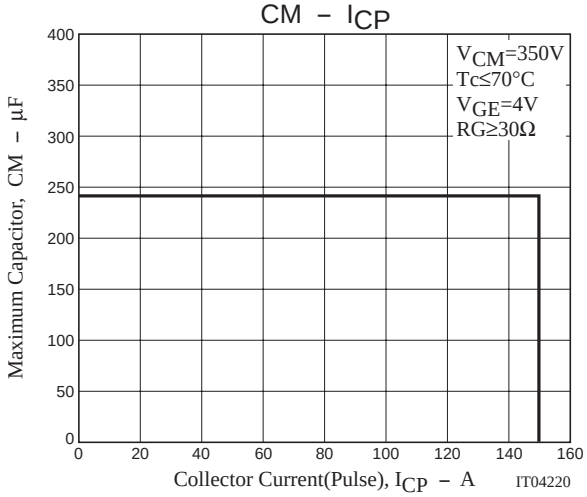












The gate series resistance R_G must be 30Ω or more to protect the device when it is turned off.

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