

IGBT Transistor

GT8J102SM

600V / 8A

DATASHEET

OEM – Toshiba

Source: Toshiba Databook 1995/96

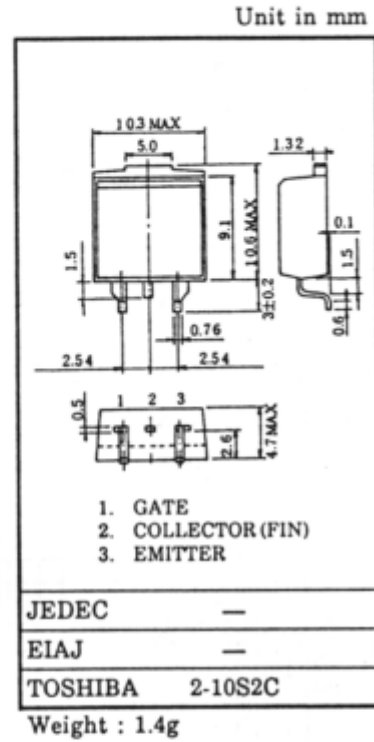
GT8J102(SM)

- HIGH POWER SWITCHING APPLICATIONS.
- MOTOR CONTROL APPLICATIONS.

- High Input Impedance
- High Speed : $t_f = 0.35 \mu s$ (Max.)
- Low Saturation Voltage : $V_{CE(sat)} = 4.0$ (Max.)
- Enhancement-Mode

MAXIMUM RATINGS (Ta = 25°C)

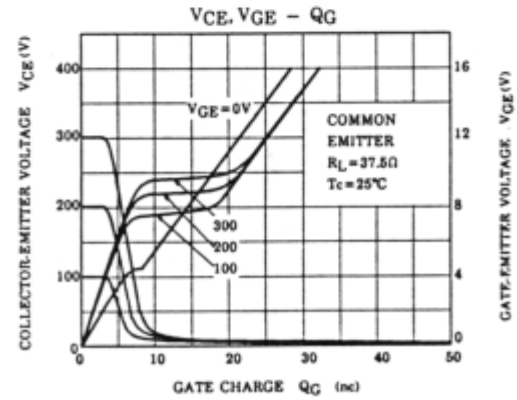
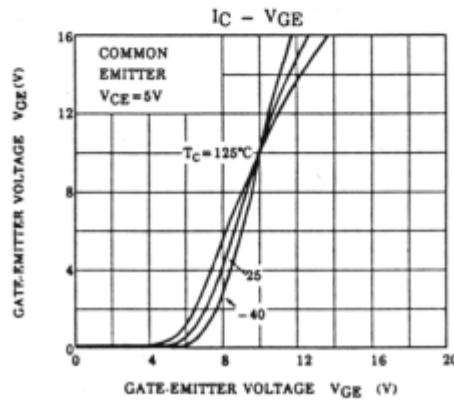
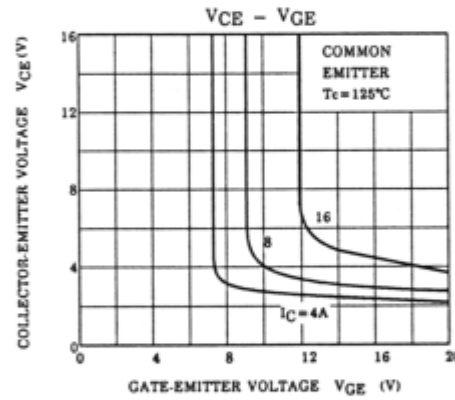
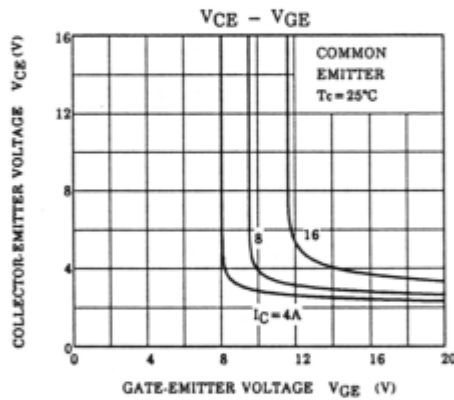
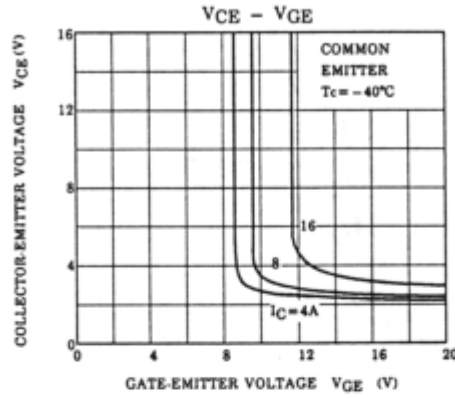
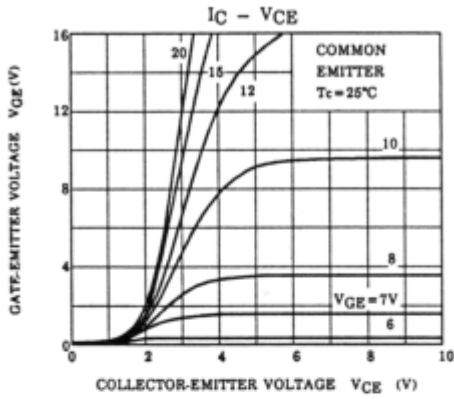
CHARACTERISTICS	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	V _{CE}	600	V
Gate-Emitter Voltage	V _{GE}	±20	V
Collector Current	DC	I _C	8
	1ms	I _{CP}	16
Collector Power Dissipation (Tc = 25°C)	P _C	50	W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55~150	°C



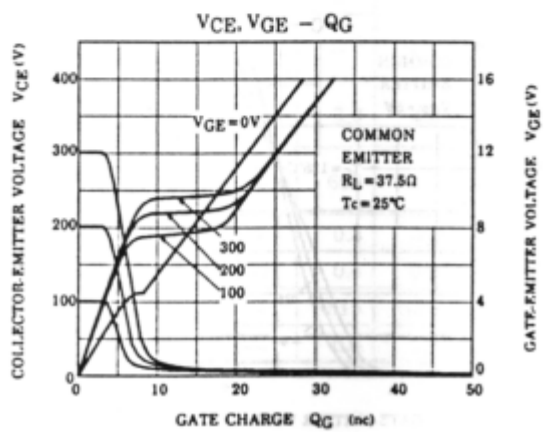
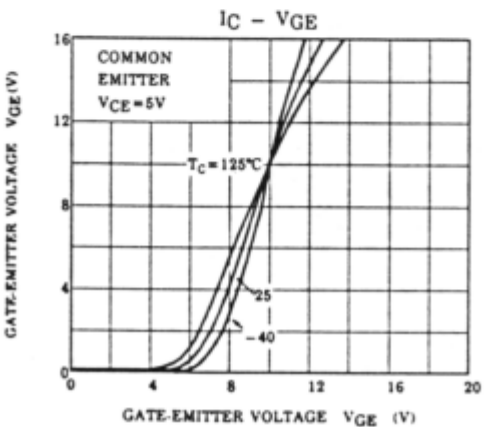
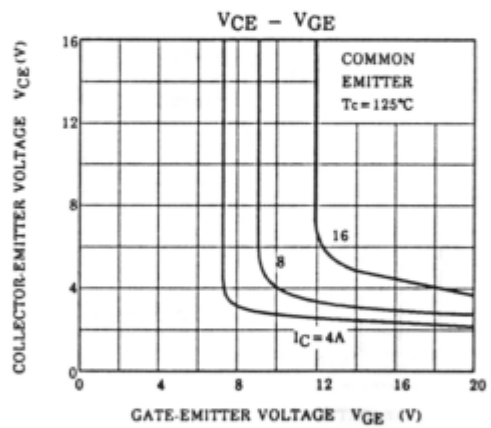
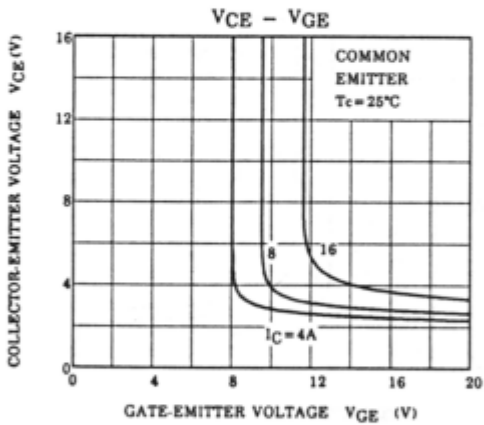
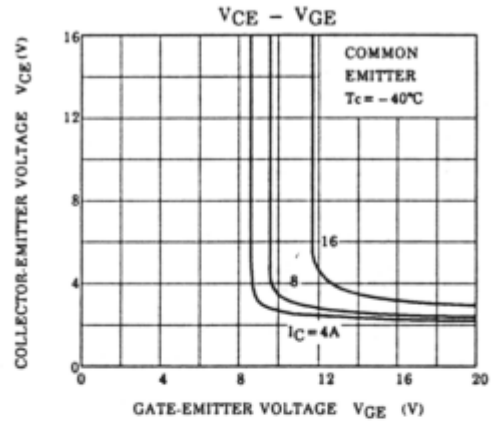
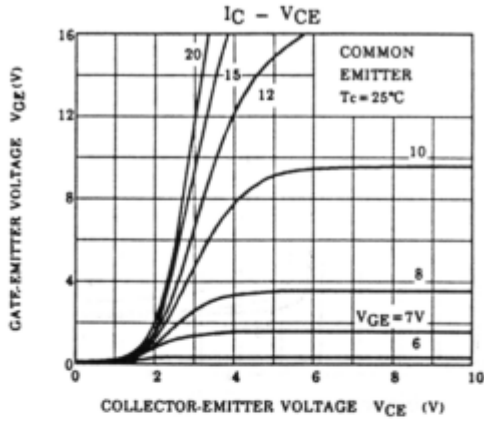
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I _{GES}	V _{GE} = ±20V, V _{CE} = 0	—	—	±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)}	V _{CE} = 5V, I _C = 8mA	3.0	—	6.0	V
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = 8A, V _{GE} = 15V	—	3.0	4.0	V
Input Capacitance	C _{ies}	V _{CE} = 10V, V _{GE} = 0, f = 1MHz	—	650	—	pF
Switching Time	Rise Time	t _r	—	0.3	0.6	μs
	Turn-on Time	t _{on}	—	0.4	0.8	
	Fall Time	t _f	—	0.15	0.35	
	Turn-off Time	t _{off}	—	0.5	1.0	

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