2PG302

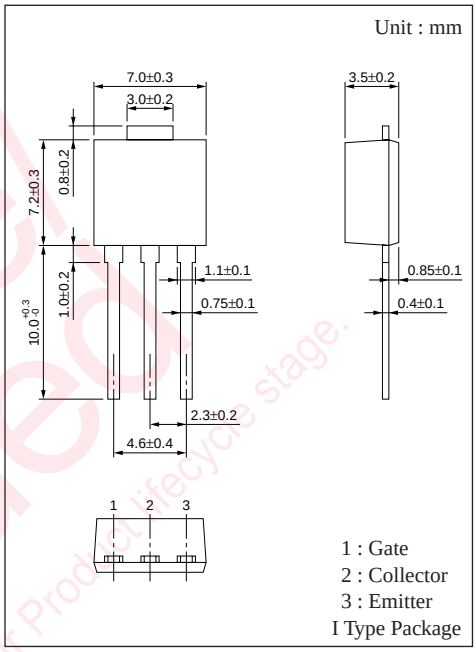
For Insulated Gate Bipolar Transistor

■ Features

- High breakdown voltage : V_{CES}= 400V
- Large current control possible : $I_{C(peak)}$=130A
- Housing in the surface mounting package possible

■ Applications

- For camera flash-light



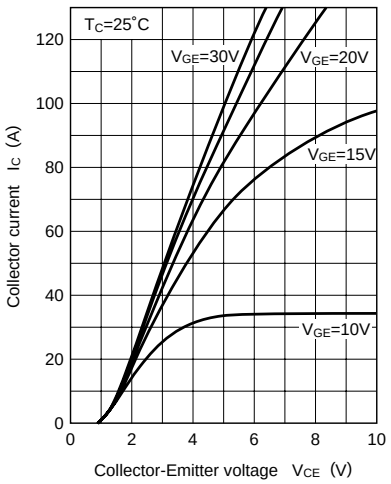
■ Absolute Maximum Ratings (Tc = 25˚C)

Parameter		Symbol	Rating	Unit
Collector-Emitter voltage		V_{CES}	400	V
Gate-Emitter voltage		V_{GES}	±30	V
Collector current	DC	I_C	5	A
	Pulse	I_{CP}	130	A
Allowable power dissipation	T_C= 25˚C	P_C	15	W
	Ta= 25˚C		1.3	
Channel temperature		T_{ch}	150	˚C
Storage temperature		T_{stg}	– 55 to +150	˚C

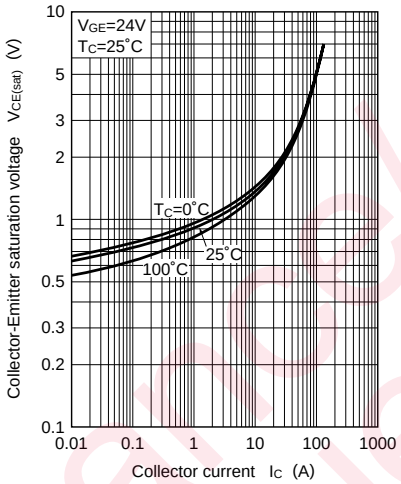
■ Electrical Characteristics (Tc = 25˚C)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Collector-Emitter cut-off current	I_{CES}	V_{CE}= 320V, V_{GE}= 0			10	µA
Gate-Emitter leakage current	I_{GES}	V_{GE}= ± 24V, V_{CE}= 0			±1	µA
Collector-Emitter breakdown voltage	V_{CES}	I_C=1mA, V_{GE}= 0	400			V
Gate threshold voltage	$V_{GE(th)}$	V_{CE}=10V, I_C=1mA	3	5.5	7	V
Collector-Emitter saturation voltage	$V_{CE(sat)}$	V_{GE}= 24V, I_C= 5A			2	V
		V_{GE}= 24V, I_C=130A			10	
Input capacitance	C_{ies}	V_{CE}=10V, V_{GE}= 0, f=1MHz		1350		pF
Turn-on time (delay time)	$t_{d(on)}$	V_{CC}= 300V, I_C=130A, V_{GE}= 24V, R_g= 25Ω		25		ns
Rise time	t_r			300		ns
Turn-off time (delay time)	$t_{d(off)}$			130		ns
Fall time	t_f			1.0		µs

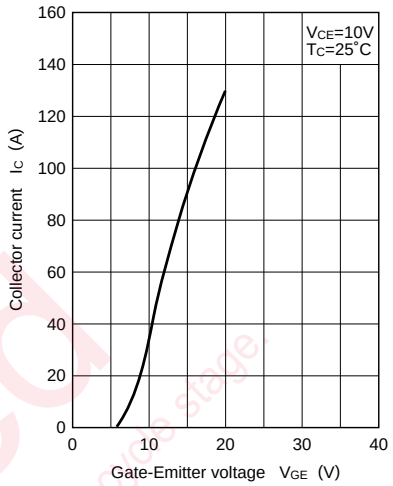
$I_C - V_{CE}$



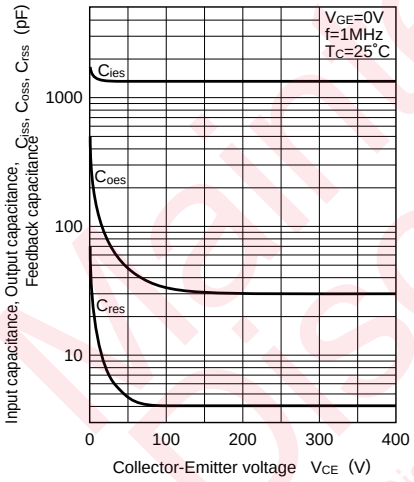
$V_{CE(sat)} - I_C$



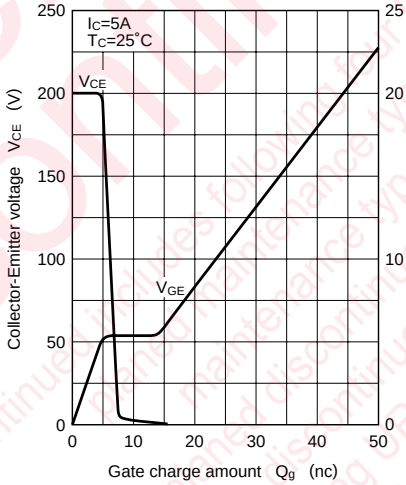
$I_C - V_{GE}$



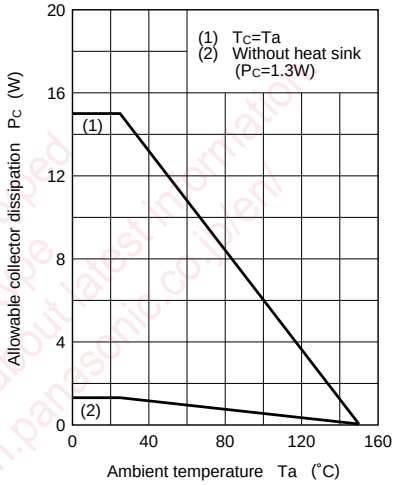
$C_{ies}, C_{oes}, C_{res} - V_{CE}$



$V_{CE}, V_{GE} - Q_g$



$P_C - Ta$



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⚠DANGER

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