

2PG351

Insulated Gate Bipolar Transistor

■ Features

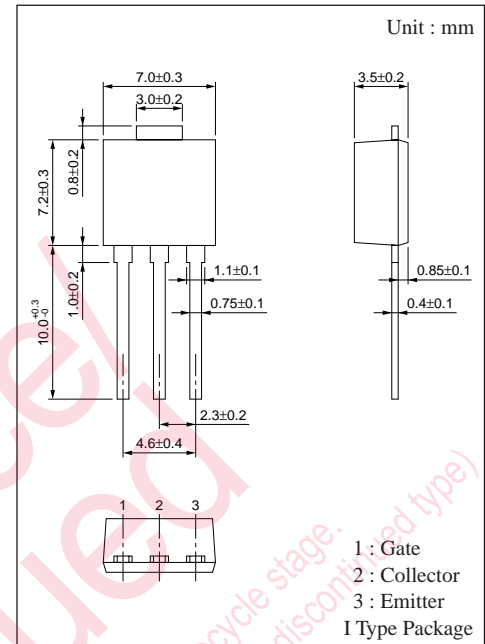
- High breakdown voltage : $V_{CES}=400V$
- Large current control possible : $I_{C(peak)}=130A$
- Housing in the surface mounting package possible

■ Applications

- For camera flash-light

■ Absolute Maximum Ratings ($T_c = 25^\circ C$)

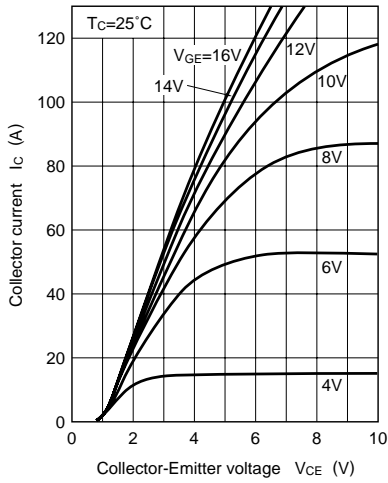
Parameter	Symbol	Rating	Unit	
Collector-Emitter voltage	V_{CES}	400	V	
Gate-Emitter voltage	V_{GES}	± 16	V	
Collector current	DC	I_C	5	A
	Pulse	I_{CP}	130	A
Allowable power dissipation	$T_c = 25^\circ C$	P_C	15	W
	$T_a = 25^\circ C$		1.3	
Channel temperature	T_{ch}	150	$^\circ C$	
Storage temperature	T_{stg}	- 55 to +150	$^\circ C$	



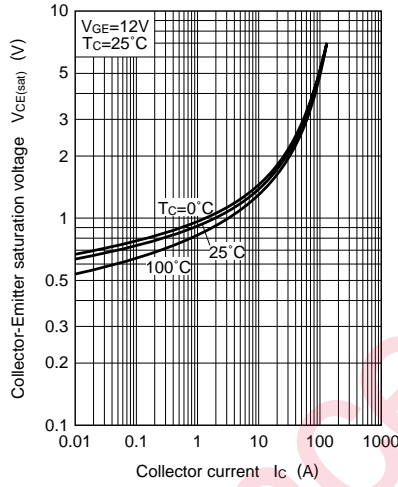
■ Electrical Characteristics ($T_c = 25^\circ C$)

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}	$V_{GE}=\pm 12V, V_{CE}=0$			± 1	μA	
Collector-Emitter breakdown voltage	V_{CES}	$I_C=1mA, V_{GE}=0$	400			V	
Gate threshold voltage	$V_{GE(th)}$	$V_{CE}=10V, I_C=1mA$	1	2.2	5	V	
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$V_{GE}=12V, I_C=5A$			2	V	
		$V_{GE}=12V, I_C=130A$			10		
Input capacitance	C_{ies}	$V_{CE}=10V, V_{GE}=0, f=1MHz$		1950		pF	
Turn-on time (delay time)	$t_{d(on)}$	$V_{CC}=300V, I_C=130A$		35		ns	
Rise time	t_r			550		ns	
Turn-off time (delay time)	$t_{d(off)}$		$V_{GE}=12V, R_g=25\Omega$		150		ns
Fall time	t_f				1.0		μs

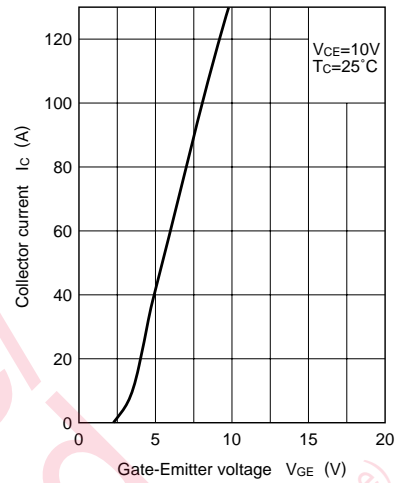
$I_C - V_{CE}$



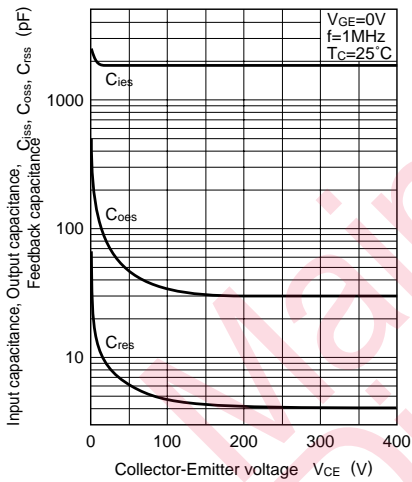
$V_{CE(sat)} - I_C$



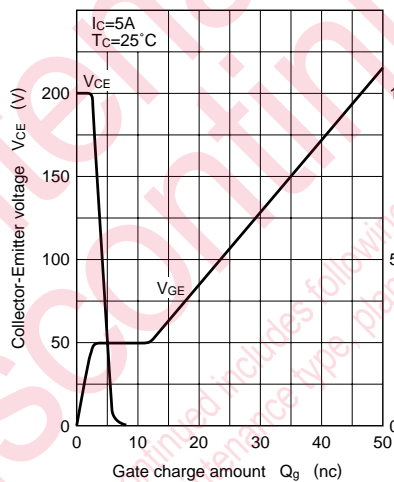
$I_C - V_{GE}$



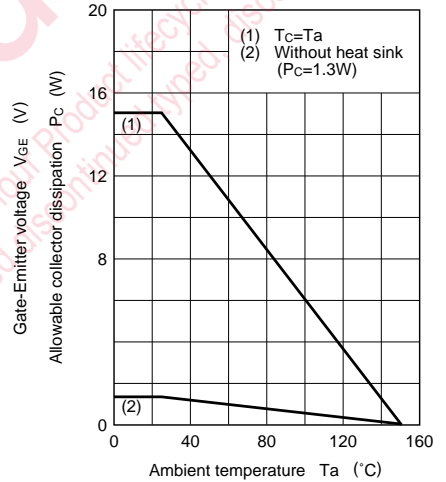
$C_{ies}, C_{oes}, C_{res} - V_{CE}$



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



$P_C - T_a$



Caution for Safety

 **DANGER**

■ This product contains Gallium Arsenide (GaAs).

GaAs powder and vapor are hazardous to human health if inhaled or ingested. Do not burn, destroy, cut, cleave off, or chemically dissolve the product. Follow related laws and ordinances for disposal. The product should be excluded from general industrial waste or household garbage.

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