

# 2PG303

## Insulated Gate Bipolar Transistor

### ■ Features

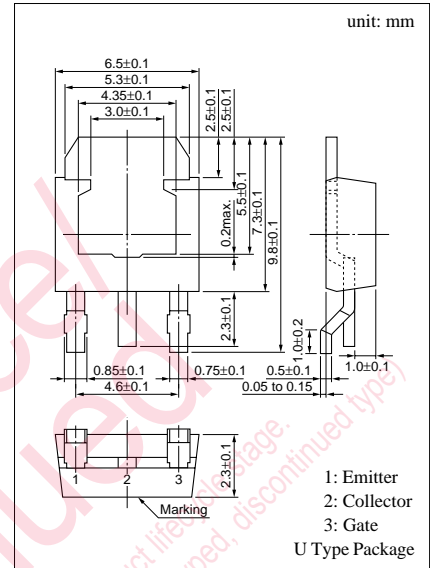
- High breakdown voltage:  $V_{CES} = 400V$
- Allowing to control large current:  $I_{C(peak)} = 150A$
- Housed in the surface mounting package

### ■ Applications

- For flash-light for use in a camera

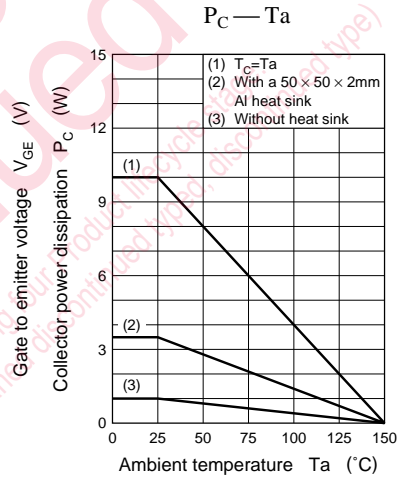
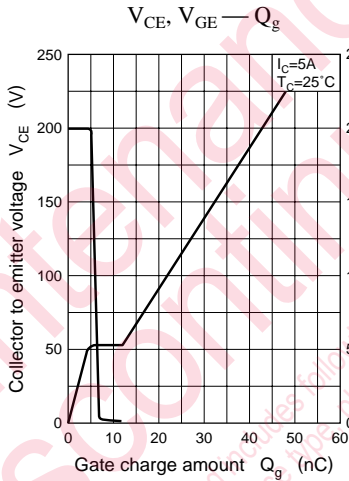
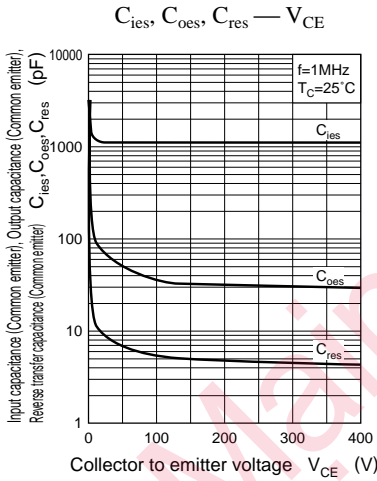
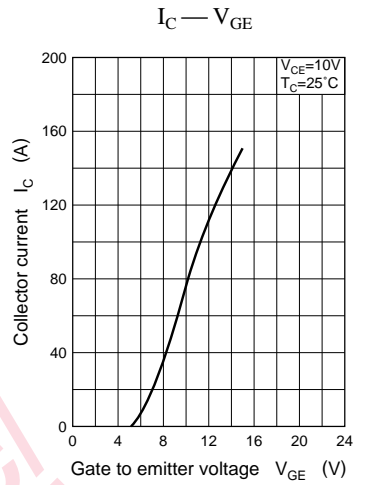
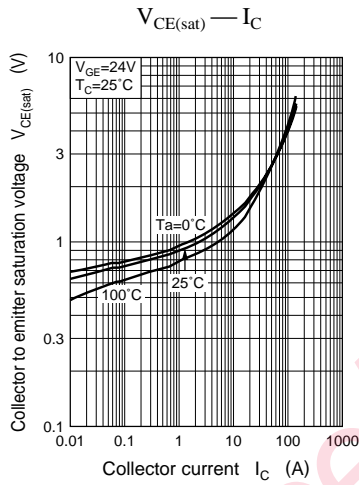
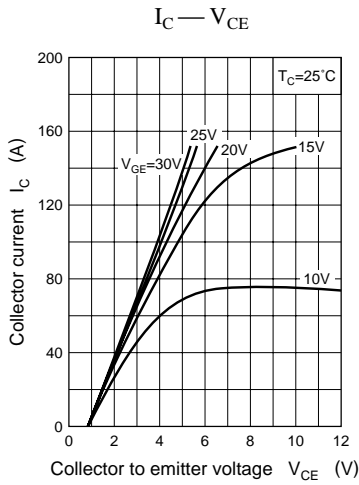
### ■ Absolute Maximum Ratings ( $T_C = 25^\circ C$ )

Parameter	Symbol	Ratings	Unit
Collector to emitter voltage	$V_{CES}$	400	V
Gate to emitter voltage	$V_{GES}$	$\pm 30$	V
Collector current	DC	$I_C$	5 A
	Pulse	$I_{CP}$	150 A
Allowable power dissipation	$T_C = 25^\circ C$	$P_C$	10 W
	$T_a = 25^\circ C$		1 W
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	Conditions	min	typ	max	Unit
Collector to emitter cut-off current	$I_{CES}$	$V_{CE} = 320V, V_{GE} = 0$			10	$\mu A$
Gate to emitter leakage current	$I_{GES}$	$V_{GE} = \pm 24V, V_{CE} = 0$			$\pm 1$	$\mu A$
Collector to 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	4.3	7	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	$V_{GE} = 24V, I_C = 5A$			2	V
		$V_{GE} = 24V, I_C = 150A$			10	
Input capacitance (Common Emitter)	$C_{ies}$	$V_{CE} = 10V, V_{GE} = 0, f = 1MHz$		1130		pF
Turn-on time (delay time)	$t_{d(on)}$	$V_{CC} = 300V, I_C = 130A$ $V_{GE} = 24V, R_g = 25\Omega$		100		ns
Rise time	$t_r$			600		ns
Turn-off time (delay time)	$t_{d(off)}$			200		ns
Fall time	$t_f$			850		ns



# 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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