

2PG401

Insulated Gate Bipolar Transistor

■ Features

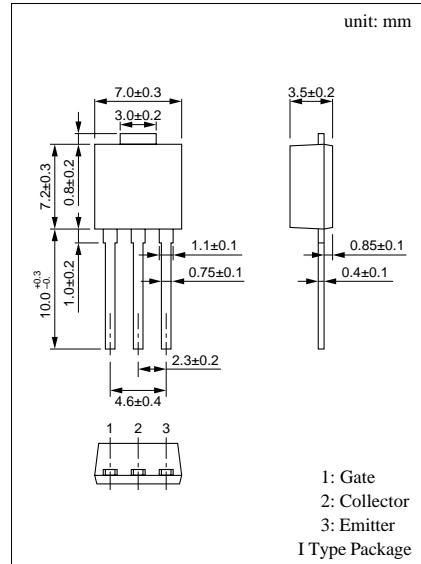
- High breakdown voltage: $V_{CES} = 400V$
- Allowing to control large current: $I_{C(\text{peak})} = 130A$
- Allowing to provide with the surface mounting package

■ Applications

- For flash-light for use in a camera

■ Absolute Maximum Ratings ($T_C = 25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Collector to emitter voltage	V _{CES}	400	V
Gate to emitter voltage	V _{GES}	±8	V
Collector current	DC	I _C	5
	Pulse	I _{CP}	130
Allowable power dissipation	T _C = 25°C	P _C	15
	T _a = 25°C		1.3
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C



■ Electrical Characteristics ($T_C = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to emitter cut-off current	I_{CES}	$V_{CE} = 320V, V_{GE} = 0$			10	μA
Gate to emitter leakage current	I_{GES}	$V_{GE} = \pm 8V, V_{CE} = 0$			± 1	μA
Collector to emitter breakdown voltage	V_{CES}	$I_C = 1mA, V_{GE} = 0$	400			V
Gate threshold voltage	$V_{GE(th)}$	$V_{CE} = 10V, I_C = 1mA$	0.5		1.5	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	$V_{GE} = 5V, I_C = 5A$			2	V
		$V_{GE} = 5V, I_C = 130A$			10	
Input capacitance (Common Emitter)	C_{ies}	$V_{CE} = 10V, V_{GE} = 0, f = 1MHz$		1930		pF
Turn-on time (delay time)	$t_{d(on)}$	$V_{CC} = 300V, I_C = 130A$		130		ns
Rise time	t_r			1.4		μs
Turn-off time (delay time)	$t_{d(off)}$			350		ns
Fall time	t_f			1.5		μs

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