

# 2PG352

## Insulated Gate Bipolar Transistor

### ■ Features

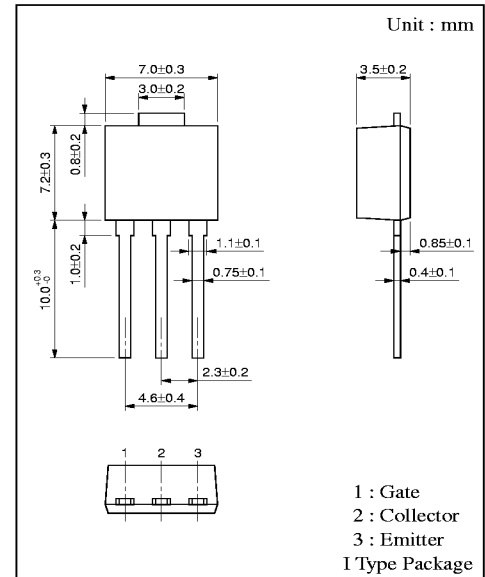
- High breakdown voltage :  $V_{CES} = 400V$
- Large current control possible :  $I_{C(peak)} = 150A$
- Housing in the surface mounting package possible

### ■ 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        |                    | $V_{GES}$ | $\pm 16$     | V          |
| Collector current           | DC                 | $I_C$     | 5            | A          |
|                             | Pulse              | $I_{CP}$  | 150          | 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      | $\mu A$ |
| Gate-Emitter leakage current         | $I_{GES}$     | $V_{GE} = \pm 12V, V_{CE} = 0$                                |     |      | $\pm 1$ | $\mu A$ |
| 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   | 2.0  | 5       | V       |
| Collector-Emitter saturation voltage | $V_{CE(sat)}$ | $V_{GE} = 12V, I_C = 5A$                                      |     |      | 2       | V       |
|                                      |               | $V_{GE} = 12V, I_C = 150A$                                    |     |      | 10      |         |
| Input capacitance                    | $C_{ies}$     | $V_{CE} = 10V, V_{GE} = 0, f = 1MHz$                          |     | 1370 |         | pF      |
| Turn-on time (delay time)            | $t_{d(on)}$   | $V_{CC} = 300V, I_C = 130A$<br>$V_{GE} = 12V, R_g = 25\Omega$ |     | 20   |         | ns      |
| Rise time                            | $t_r$         |                                                               |     | 250  |         | ns      |
| Turn-off time (delay time)           | $t_{d(off)}$  |                                                               |     | 150  |         | ns      |
| Fall time                            | $t_f$         |                                                               |     | 700  |         | ns      |