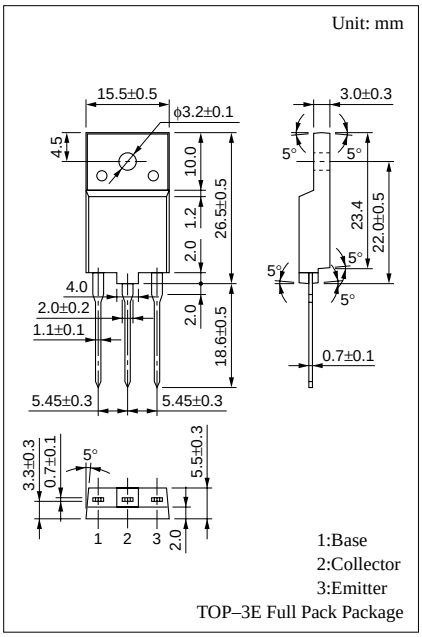
# 2SC5418

## Silicon NPN triple diffusion mesa type

For horizontal deflection output




### Features

- High breakdown voltage, and high reliability through the use of a glass passivation layer
- High-speed switching
- Wide area of safe operation (ASO)

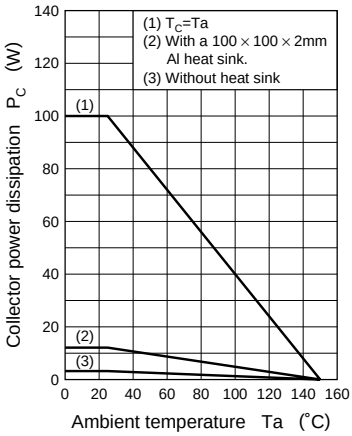
### Absolute Maximum Ratings ($T_C$=25˚C)

| Parameter | | Symbol | Ratings | Unit |
|---|---|---|---|---|
| Collector to base voltage | | $V_{CBO}$ | 1700 | V |
| Collector to emitter voltage | | $V_{CES}$ | 1700 | V |
| | | $V_{CEO}$ | 600 | V |
| Emitter to base voltage | | $V_{EBO}$ | 5 | V |
| Peak collector current | | $I_{CP}$ | 30 | A |
| Collector current | | $I_C$ | 20 | A |
| Base current | | $I_B$ | 10 | A |
| Collector power dissipation | $T_C$=25°C | $P_C$ | 100 | W |
| | Ta=25°C | | 3.5 | |
| Junction temperature | | $T_j$ | 150 | ˚C |
| Storage temperature | | $T_{stg}$ | –55 to +150 | ˚C |

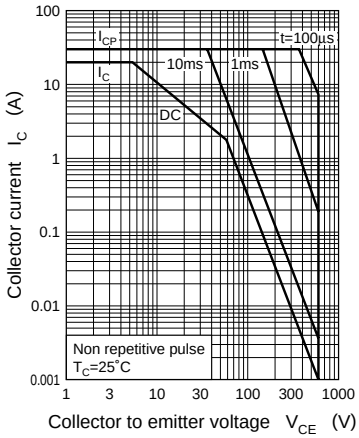
### Electrical Characteristics ($T_C$=25˚C)

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|---|---|---|---|---|---|---|
| Collector cutoff current | $I_{CBO}$ | $V_{CB}$ = 1000V, $I_E$ = 0 | | | 50 | μA |
| | | $V_{CB}$ = 1700V, $I_E$ = 0 | | | 1 | mA |
| Emitter cutoff current | $I_{EBO}$ | $V_{EB}$ = 5V, $I_C$ = 0 | | | 50 | μA |
| Forward current transfer ratio | $h_{FE}$ | $V_{CE}$ = 5V, $I_C$ = 10A | 7 | | 14 | |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C$ = 10A, $I_B$ = 2.8A | | | 3 | V |
| Base to emitter saturation voltage | $V_{BE(sat)}$ | $I_C$ = 10A, $I_B$ = 2.8A | | | 1.5 | V |
| Transition frequency | $f_T$ | $V_{CE}$ = 10V, $I_C$ = 0.1A, f = 0.5MHz | | 3 | | MHz |
| Storage time | $t_{stg}$ | $I_C$ = 12A, $I_{B1}$ = 2.4A, $I_{B2}$ = –4.8A | | | 4.0 | μs |
| Fall time | $t_f$ | | | | 0.3 | μs |

$P_C$ — Ta




Area of safe operation (ASO)




Area of safe operation, horizontal operation ASO

