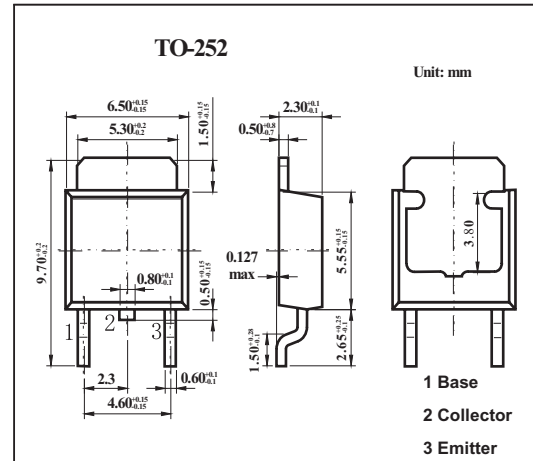


# 2SC3518-Z

### ■ Features

- Low  $V_{CE(sat)}$ .
- Fast switching speed.
- High DC current gain.



### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	60	V
Collector-emitter voltage	$V_{CEO}$	60	V
Emitter-base voltage	$V_{EBO}$	7	V
Collector current	$I_C$	5	A
Collector current (pulse) *1	$I_{CP}$	7	A
Total power dissipation *2	$P_T$	2	W
Junction temperature	$T_J$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\*1  $PW \leq 10 \text{ ms}$ , duty cycle  $\leq 50\%$

\*2 When mounted on ceramic substrate of  $7.5\text{cm}^2 \times 0.7\text{mm}$

### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 50\text{V}$ , $I_E = 0$			10	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 7\text{V}$ , $I_C = 0$			10	$\mu\text{A}$
DC current gain *	$h_{FE}$	$V_{CE} = 1\text{V}$ , $I_C = 2\text{A}$	100		400	V
		$V_{CE} = 1\text{V}$ , $I_C = 5\text{A}$	50			
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 2\text{A}$ , $I_B = 0.2\text{A}$			0.3	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = 2\text{A}$ , $I_B = 0.2\text{A}$			1.2	V
Gain bandwidth product	$f_T$	$V_{CE} = 10\text{V}$ , $I_E = 500\text{mA}$		120		MHz
Turn-on time	$t_{on}$	$V_{CC} = 10\text{V}$ , $R_L = 5\Omega$		0.07	1	$\mu\text{s}$
Storage time	$t_{stg}$	$I_C = 2\text{A}$ ,		0.8	2.5	$\mu\text{s}$
Turn-off time	$t_{off}$	$I_{B1} = -I_{B2} = 0.2\text{A}$		0.12	1	$\mu\text{s}$

\*.  $PW \leq 350\mu\text{s}$ , duty cycle  $\leq 2\%$

### ■ $h_{FE}$ Classification

Marking	M	L	K
$h_{FE}$	100~200	150~300	200~400