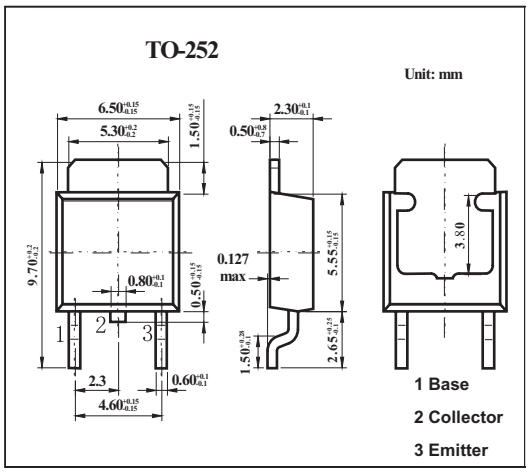
NPN Silicon Epitaxia

2SC3518-Z



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

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	℃
Storage temperature	T_{stg}	-55 to +150	℃

*1 PW ⩽ 10 ms, duty cycle ⩽ 50%

*2 When mounted on ceramic substrate of 7.5cm^{2}X0.7mm

■ Electrical Characteristics Ta = 25℃

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

*. PW⩽350μs,duty cycle⩽2%

■ h_{FE} Classification

Marking	M	L	K
hFE	100～200	150～300	200～400