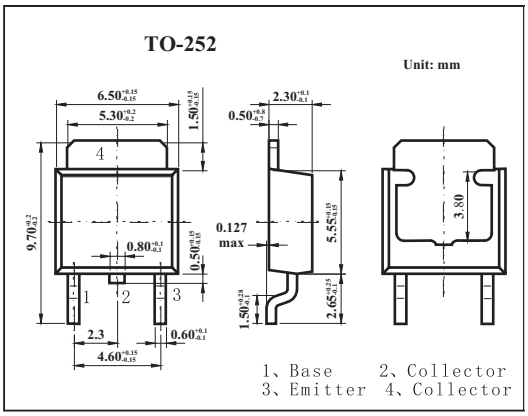
NPN Silicon Epitaxial Transistor

2SC3518-Z



■ Features

- High DC Current Gain h_{FE} = 100 to 400
- Low $V_{CE(sat)}$: $V_{CE(sat)}$ = 0.09V Typ.
- Complement to 2SA1385-Z

■ 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 (DC)	I_C	5	A
Collector Current (Pulse) *1	I_C	7	A
Total Power Dissipation (T_C = 25℃) *2	P_T	2.0	W
Jumction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

*1 PW ⩽ 10ms, Duty Cycle ⩽ 50%

*2 When mounted on ceramic substrate of 7.5cm^2 x 0.7mm

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector Cut-off Current	I_{CBO}	V_{CB} = 50V , I_E = 0			10	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 7.0V , I_C = 0			10	μA
DC Current Gain	h_{FE1} *	V_{CE} = 1.0V , I_C = 2.0A	100		400	
DC Current Gain	h_{FE2} *	V_{CE} = 1.0V , I_C = 5.0A	50			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$ *	I_C = 2.0A , I_B = 0.2A			0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$ *	I_C = 2.0A , I_B = 0.2A			1.2	V
Current Gain Bandwidth Product	f_T *	V_{CE} = 10V , I_E = 500mA		120		MHz
Turn-on Time	t_{on}	V_{CC} = 10V , I_C = 2.0A R_L = 50Ω I_{B1} = -I_{B2} = 0.2A		0.07	1.0	μs
Storage Time	t_{stg}			0.8	2.5	
Fall Time	t_f			0.12	1.0	

* Pulsed: PW ⩽ 350μs, Duty Cycle ⩽ 2%

■ h_{FE} Classification

Marking	M	L	K
h_{FE1}	100 ～ 200	160 ～ 320	200 ～ 400