

2SC5814

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

2SC5814 is a super mini package silicon NPN epitaxial type transistor.
It is designed for low frequency voltage application.

FEATURE

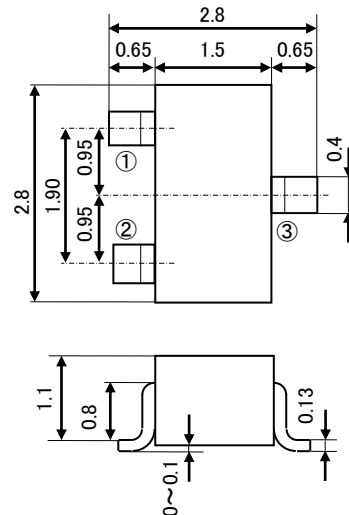
- Low collector to emitter saturation voltage.
 $V_{CE(sat)}=0.3V$ max(@ $I_C=30mA$, $I_B=1.5mA$)
- Facilitates miniaturization and high-density mounting.
- Excellent linearity of DC forward current gain.

APPLICATION

For hybrid IC, small type machine low frequency voltage
amplify application.

OUTLINE DRAWING

Unit: mm



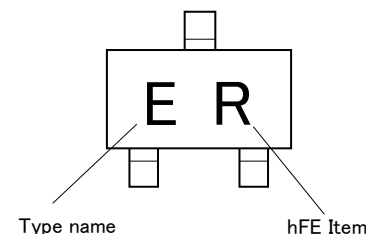
TERMINAL CONNECTER

- ①: BASE JEITA: SC-59
②: EMITTER JEDEC: Similar to TO-236
③: COLLECTOR

MAXIMUM RATINGS (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to Base voltage	V_{CBO}	60	V
Emitter to Base voltage	V_{EBO}	6	V
Collector to Emitter voltage	V_{CEO}	60	V
Collector current	I_C	125	mA
Collector dissipation	P_C	150	mW
Junction temperature	T_j	+150	°C
Storage temperature	T_{stg}	-55~+150	°C

MARKING



ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E breakdown voltage	$V_{(BR)CEO}$	$I_C=100\mu A$, $R_{BE}=\infty$	60	-	-	V
Collector cut off current	I_{CBO}	$V_{CB}=60V$, $I_E=0$	-	-	0.5	μA
Emitter cut off current	I_{EBO}	$V_{EB}=4V$, $I_C=0$	-	-	0.5	μA
DC forward current gain ※	hFE	$V_{CE}=6V$, $I_C=1mA$	120	-	560	-
DC forward current gain	hFE	$V_{CE}=6V$, $I_C=0.1mA$	70	-	-	-
C to E saturation voltage	$V_{CE(sat)}$	$I_C=30mA$, $I_B=1.5mA$	-	-	0.3	V
Gain bandwidth product	fT	$V_{CE}=6V$, $I_E=-10mA$	-	200	-	MHz
Collector output capacitance	Cob	$V_{CB}=6V$, $I_E=0mA$, $f=1MHz$	-	1.5	-	pF

※ It shows hFE classification at right table.

Item	E	F	Q	R	S
hFE	150~300	250~500	120~270	180~390	270~560

Keep safety first in your circuit designs!

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