〈SMALL-SIGNAL TRANSISTOR〉

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

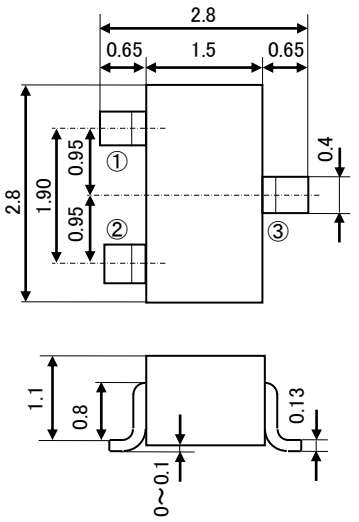
- Low collector to emitter saturation voltage.
  $V_{CE(sat)}$=0.3V max(@I_C=30mA, I_B=1.5mA)
- Facilitates miniaturization and high-density mounting.
- Excellent linearity of DC forward current gain.

APPLICATION

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

OUTLINE DRAWING

Unit:mm



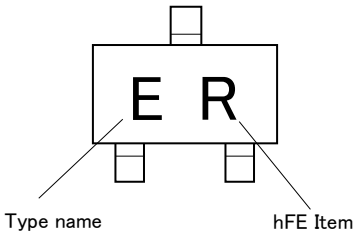
TERMINAL CONNECTER
①:BASE
②:EMITTER
③:COLLECTOR

JEITA:SC-59
JEDEC:Similar to TO-236

MAXIMUM RATINGS (Ta=25℃)

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	℃
Storage temperature	T_{stg}	−55～+150	℃

MARKING



ELECTRICAL CHARACTERISTICS (Ta=25℃)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E breakdown voltage	$V_{(BR)CEO}$	I_C=100μA, R_{BE}=∞	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 ※	h_{FE}	V_{CE}=6V, I_C=1mA	120	−	560	−
DC forward current gain	h_{FE}	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	f_T	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

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