〈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.
VCE(sat)=0.3V max(@I_C=30mA, I_B=1.5mA)

●Facilitates miniaturization and high-density mouting.

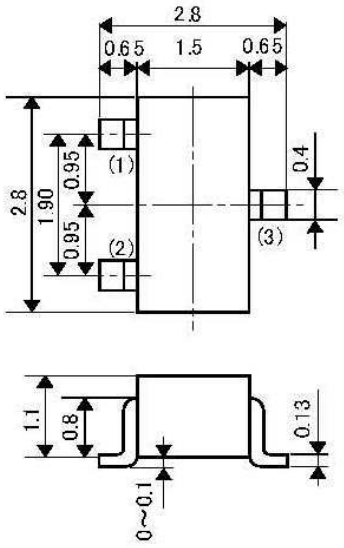
●Excellent linearity of DC forward current gain.

APPLICATION

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

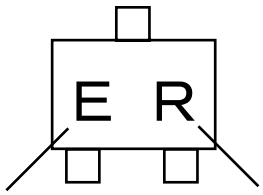
OUTLINE DRAWING

Unit:mm



JEITA:SC-59
JEDEC:similar to TO-236
TERMINAL CONNECTER
①:BASE
②:EMITTER
③:COLLECTOR

MARKING



TYPE NAME　　h_{FE} ITEM

MAXIMUM RATINGS(Ta=25℃)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	60	V
V_{EBO}	Emitter to Base voltage	6	V
V_{CEO}	Collector to Emitter voltage	60	V
I_O	Collector current	125	mA
P_c	Collector dissipation	150	mW
T_j	Junction temperature	+125	℃
T_{stg}	Storage temperature	−55～+125	℃

ELECTRICAL CHARACTERISTICS(Ta=25℃)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E break down voltage	V(BR)CEO	I_C=1uA ,R_{BE}=∞	60	−	−	V
Collector cut off current	ICBO	V_{CB}=60V, I_E=0mA	−	−	0.5	μA
Emitter cut off current	IEBO	V_{EB}=4V, I_C=0mA	−	−	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 Vlotage	VCE(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 h_{FE} classification in below table.

Item	Q	R	S
h_{FE}	120～270	180～390	180～390
Marking	EQ	ER	ES

Item	E	F
h_{FE}	150～300	250～500
Marking	EE	EF

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