

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.

MAXIMUM RATINGS (T_a=25°C)

Symbol	Parameter	Ratings	Unit
V _{CB0}	Collector to Base voltage	60	V
V _{EB0}	Emitter to Base voltage	6	V
V _{CE0}	Collector to Emitter voltage	60	V
I _O	Collector current	125	mA
P _c	Collector dissipation	150	mW
T _j	Junction temperature	+125	°C
T _{stg}	Storage temperature	-55~+125	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C)

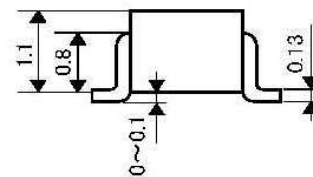
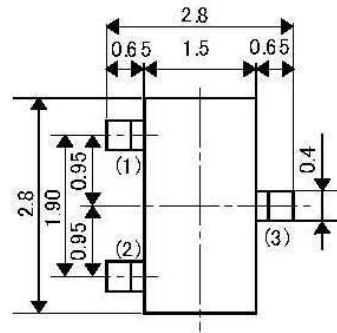
Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E break down voltage	V(BR) _{CEO}	I _C =1uA, R _{BE} =∞	60	-	-	V
Collector cut off current	ICBO	V _{CB} =60V, I _E =0mA	-	-	0.5	μA
Emitter cut off current	IEBO	V _{EB} =4V, I _C =0mA	-	-	0.5	μA
DC forward current gain	hFE	V _{CE} =6V, 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

OUTLINE DRAWING

Unit: mm



JEITA: SC-59

JEDEC: similar to TO-236

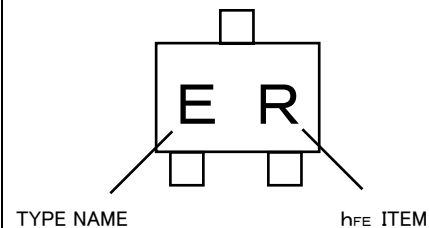
TERMINAL CONNECTER

①: BASE

②: EMITTER

③: COLLECTOR

MARKING





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