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

- \blacksquare 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.

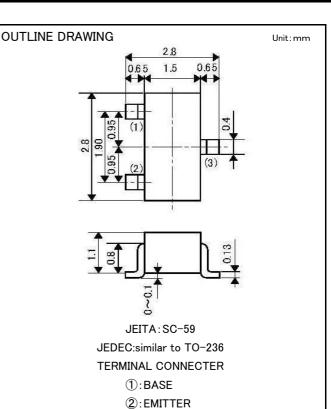
APPLICATION

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

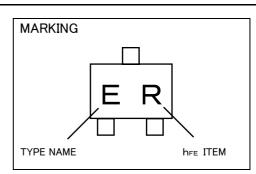
MAXIMUM RATINGS(Ta=25°C)

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
Ι _ο	Collector current	125	mA
P _c	Collector dissipation	150	mW
Tj	Junction temperature	+125	°C
T _{stg}	Storage temperature	-55~+125	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)



3:COLLECTOR



Parameter	Symbol	Test conditions	Limits			Unit
Farameter	Symbol			Тур	Max	Onic
C to E break down voltage	V(BR)CEO	I _c =1uA ,R _{BE} =∞	60	-	-	V
Collector cut off current	Ісво	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 X	120	1	560	1
DC forward current gain	hFE	V _{CE} =6V, I _C =0.1mA	70	1	-	I
C to E Saturation Vlotage	VCE(sat)	I _c =30mA ,I _B =1.5mA	I	I	0.3	٧
Gain bandwidth product	fT	V _{CE} =6V, I _E =-10mA	I	200	-	MHz
Collector output capacitance	Cob	V _{CB} =6V, I _E =0mA,f=1MHz	-	1.5	-	pF

 $\,\, \ensuremath{\overset{\scriptstyle }{\times}}\,$ It shows $\, h_{\rm FE}\,$ 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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