

2SC5814, 2SC5815, 2SC5816, 2SC5817

For Low Frequency Amplify Application
Silicon NPN Epitaxial Type

DESCRIPTION

2SC5814, 2SC5815, 2SC5816, 2SC5817 is a super mini package silicon NPN epitaxial type transistor. It is designed for low frequency voltage amplify application.

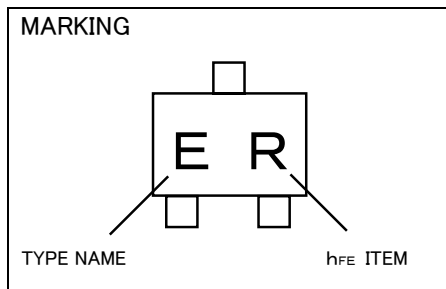
FEATURE

- Facilitates miniaturization and high-density mounting
- Excellent linearity of DC forward current gain
- Low collector to emitter saturation voltage

$$V_{CE(sat)} = 0.3V \text{ max (@} I_C = 30mA, I_B = 1.5mA \text{)}$$

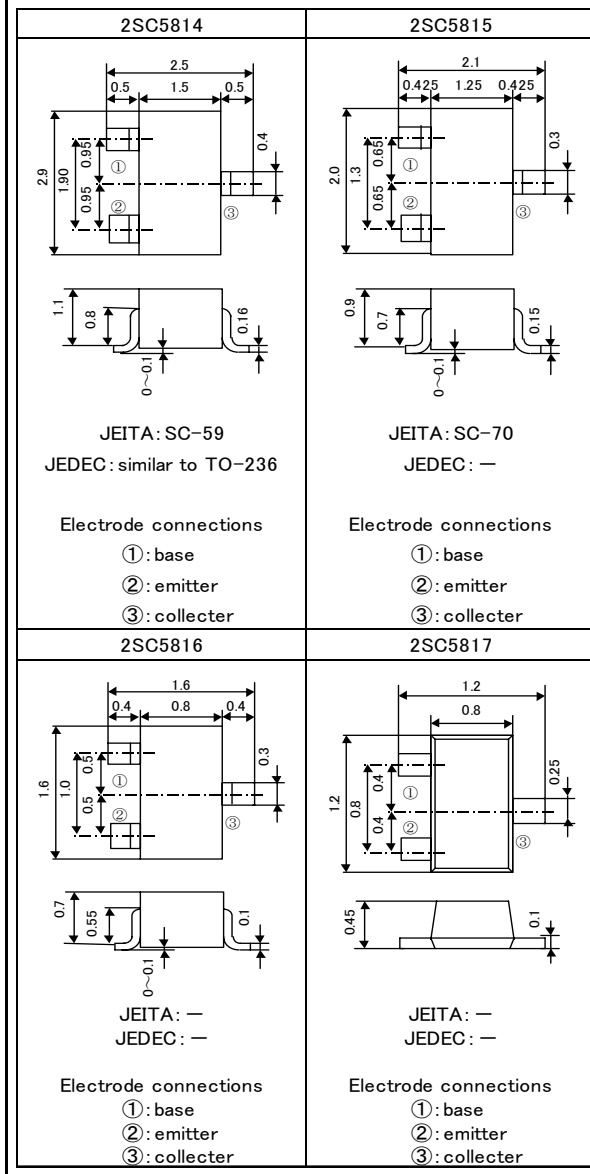
APPLICATION

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



OUTLINE DRAWING

Unit: mm



MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	RATINGS				UNIT
		2SC5814	2SC5815	2SC5816	2SC5817	
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 _C	Collector current	125				mA
P _C	Collector dissipation	150		125	100	mW
T _j	Junction temperature	+125				°C
T _{stg}	Storage temperature	-55~+125				°C

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ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E break down voltage	$I_C=100\mu A, R_{BE}=\infty$	60			V
I_{CBO}	Collector cut off current	$V_{CB}=60V, I_E=0mA$			0.5	μA
I_{EBO}	Emitter cut off current	$V_{EB}=4V, I_C=0mA$			0.5	μA
$h_{FE} *$	DC forward current gain	$V_{CE}=6V, I_C=1mA$	120		560	-
h_{FE}	DC forward current gain	$V_{CE}=6V, I_C=0.1mA$	70			-
$V_{CE(sat)}$	C to E saturation voltage	$I_C=30mA, I_B=1.5mA$			0.3	V
f_T	Gain band width product	$V_{CE}=6V, I_E=-10mA$		200		MHz
C_{ob}	Collector output capacitance	$V_{CB}=6V, I_E=0mA, f=1MHz$		1.5		pF

* It shows h_{FE} classification in right 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



Marketing division, Marketing planning department

6-41 Tsukuba, Isahaya, Nagasaki, 854-0065 Japan

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