〈SMALL-SIGNAL TRANSISTOR〉

2SC5815

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

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

FEATURE

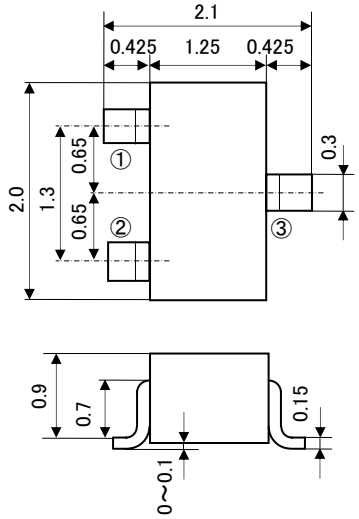
- Low collector to emitter saturation voltage.
  VCE(sat)=0.3V max(@I_C=30mA, I_B=1.5mA)
- Facilitates miniaturization and high-density mounting.
- Excellent linearity of DC forward current gain.

APPLICATION

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

OUTLINE DRAWING

Unit:mm

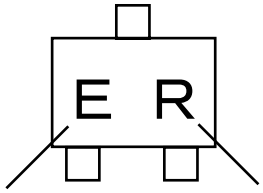


JEITA:SC-70
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TERMINAL CONNECTER
①:BASE
②:EMITTER
③:COLLECTOR

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

MARKING



TYPE NAME　　h_{FE} ITEM

ELECTRICAL CHARACTERISTICS(Ta=25℃)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E breakdown 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 voltage	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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