ISA1989AU1-T150

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

AEC-Q101 Compliance

FEATURE

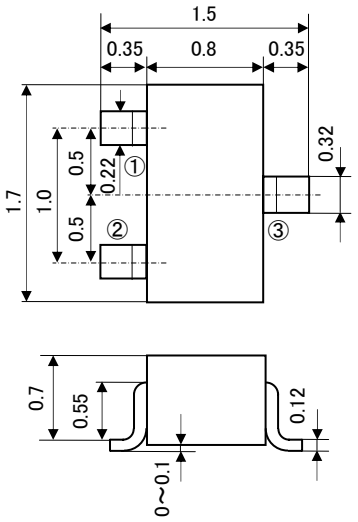
- ・Super mini package resin sealed silicon PNP epitaxial type transistor.
- ・Excellent linearity of DC forward current gain
- ・Small collector to emitter saturation voltage VCE(sat)=−0.3Vmax

APPLICATION

- ・For small type machine low frequency voltage Amplify application.

OUTLINE DRAWING

UNIT:mm



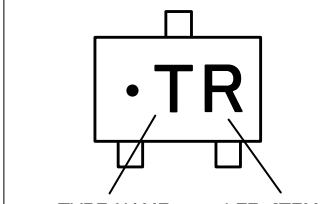
TERMINAL CONNECTER
①:BASE
②:EMITTER
③:COLLECTOR

JEITA:SC-75A
JEDEC:−

MAXIMUM RATINGS(Ta=25℃)

Parameter	Symbol	Ratings	UNIT
Collector to Base voltage	V_{CBO}	−60	V
Emitter to Base voltage	V_{EBO}	−6	V
Collector to Emitter voltage	V_{CEO}	−50	V
Collector current	I_C	−150	mA
Collector dissipation	P_C	150	mW
Junction temperature	Tj	+150	℃
Storage temperature	Tstg	−55～+150	℃

MARKING



ELECTRICAL CHARACTERISTICS(Ta=25℃)

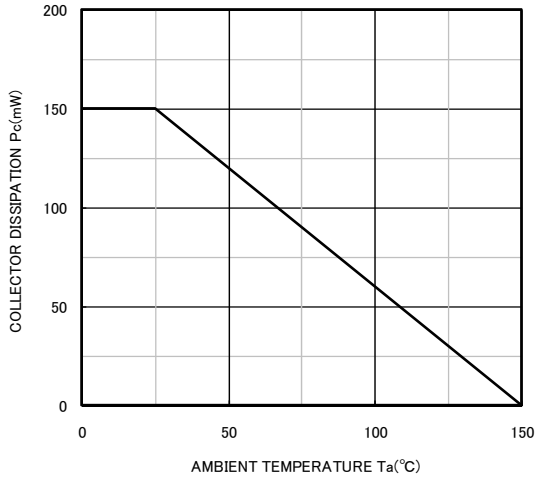
Parameter	Symbol	Test conditions	Limits			UNIT
			Min	Ave	Max	
Collector to Emitter Breakdown voltage	$V_{(BR)CEO}$	I_C=−100μA, R_{BE}=∞	−50	−	−	V
Collector cut off current	I_{CBO}	V_{CB}=−60V, I_E=0mA	−	−	−0.1	μA
Emitter cut off current	I_{EBO}	V_{EB}=−4V, I_C=0mA	−	−	−0.1	μA
DC forward current gain	h_{FE} *	V_{CE}=−6V, I_C=−1mA	120	−	560	−
DC forward current gain	h_{FE}	V_{CE}=−6V, I_C=−0.1mA	70	−	−	−
Collector to Emitter saturation voltage	$V_{CE(sat)}$	I_C=−100mA, I_B=−10mA	−	−	−0.3	V
Gain bandwidth product	f_T	V_{CE}=−6V, I_E=10mA	−	200	−	MHz
Collector output capacitance	Cob	V_{CB}=−6V, I_E=0, f=1MHz	−	4.0	−	pF

＊:It shows hFE classification in below table

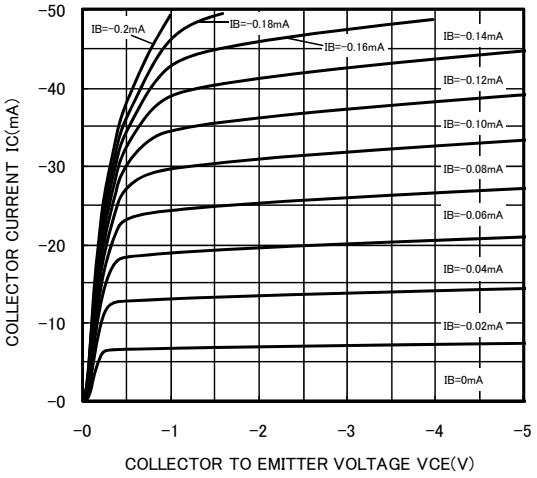
Item	Q	R	S
hFE	120～270	180～390	270～560

TYPICAL CHARACTERISTICS

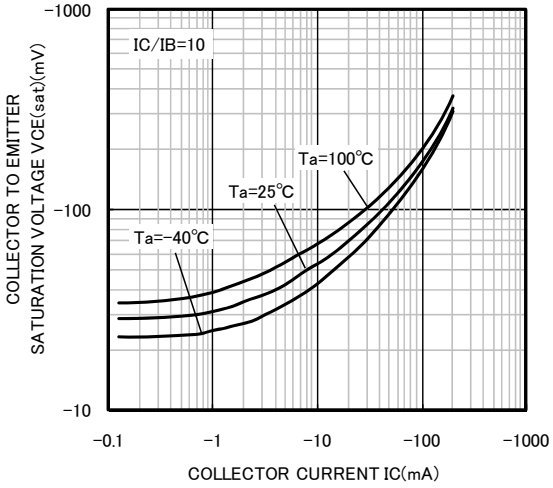
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



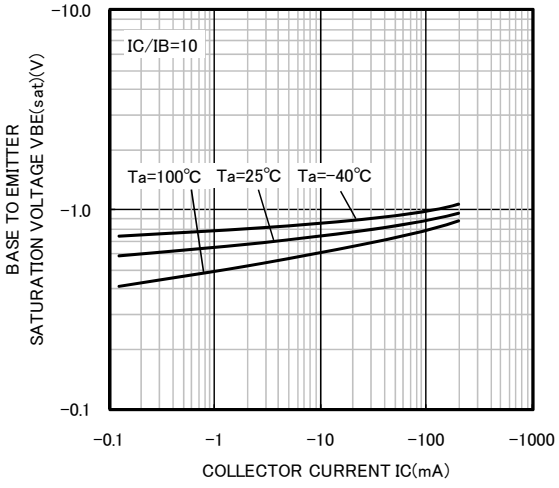
COMMON EMITTER OUTPUT



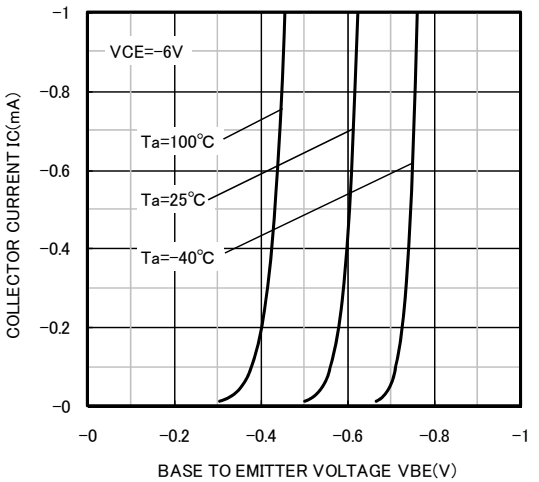
COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



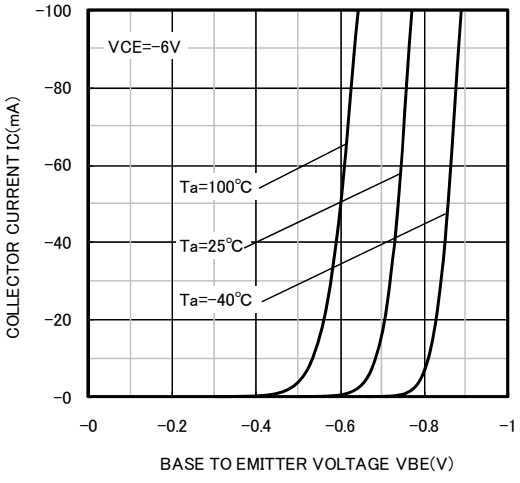
BASE TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



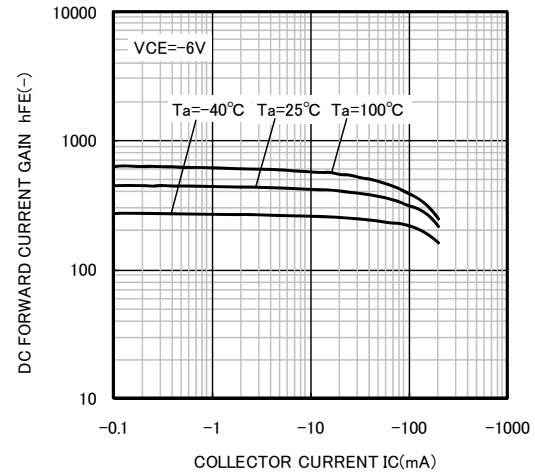
COMMON EMITTER TRANSFER



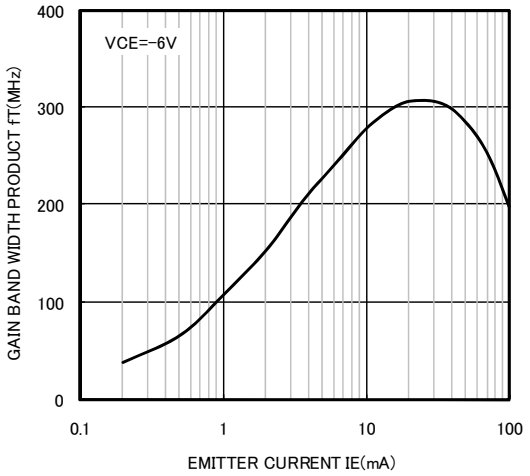
COMMON EMITTER TRANSFER



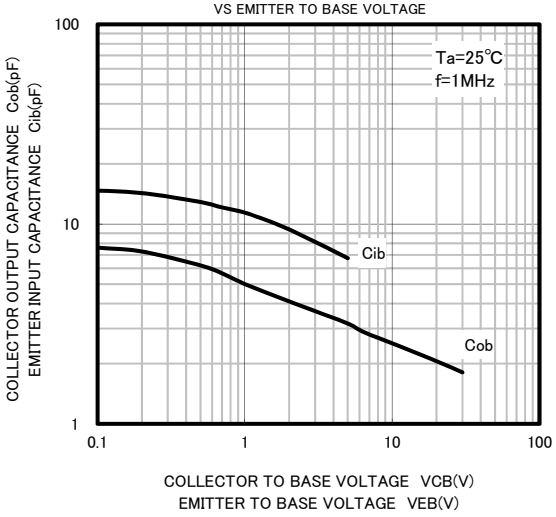
DC FORWARD CURRENT GAIN VS.
COLLECTOR CURRENT



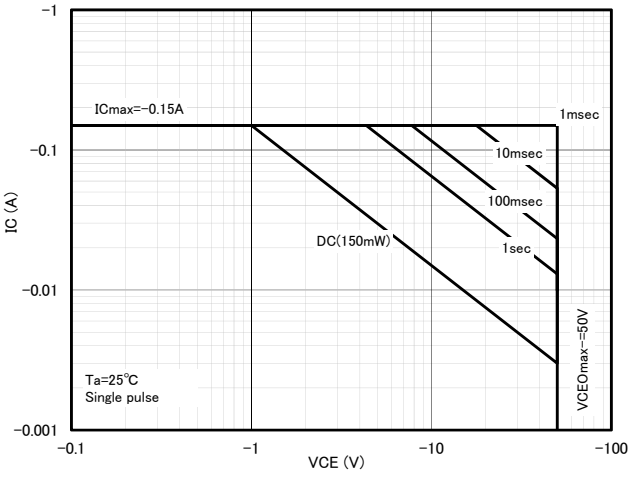
GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS COLLECTOR TO BASE VOLTAGE
EMITTER INPUT CAPACITANCE
VS EMITTER TO BASE VOLTAGE



ASO



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