〈SMALL-SIGNAL TRANSISTOR〉

ISA1989AU1

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE(ULTRA SUPER MINI TYPE)

DESCRIPTION

ISA1989AU1 is a ultra super mini package resin sealed silicon PNP epitaxial transistor,
It is designed for low frequency voltage application.

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FEATURE

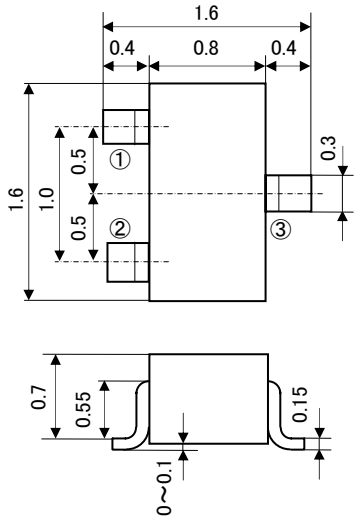
●Small collector to emitter saturation voltage.
VCE(sat)=−0.3V max(@ I_C=−30mA ,I_B=−1.5mA)
●Excellent linearity of DC forward gain.
●Super mini package for easy mounting

APPLICATION

For Hybrid IC,small type machine low frequency voltage Amplify application.

OUTLINE DRAWING

Unit:mm



JEITA:SC-75A

TERMINAL CONNECTER
①:BASE
②:EMITTER
③:COLLECTOR

MAXIMUM RATINGS(Ta=25℃)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	−50	V
V_{CEO}	Collector to Emitter voltage	−50	V
V_{EBO}	Emitter to Base voltage	−6	V
I_O	Collector current	−100	mA
P_c	Collector dissipation	150	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55～+150	℃

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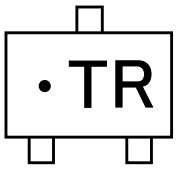
MARKING



ELECTRICAL CHARACTERISTICS(Ta=25℃)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to E break down voltage	V(BR)CEO	I_C=−100μA ,R_{BE}=∞	−50	−	−	V
Collector cut off current	ICBO	V_{CB}=−50V, 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_{CE}=−6V, I_E=0,f=1MHz	−	2.5	−	pF

※) It shows hFE classification in below table.

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

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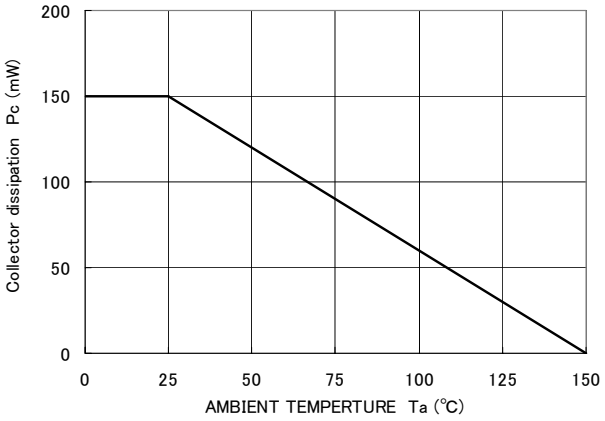
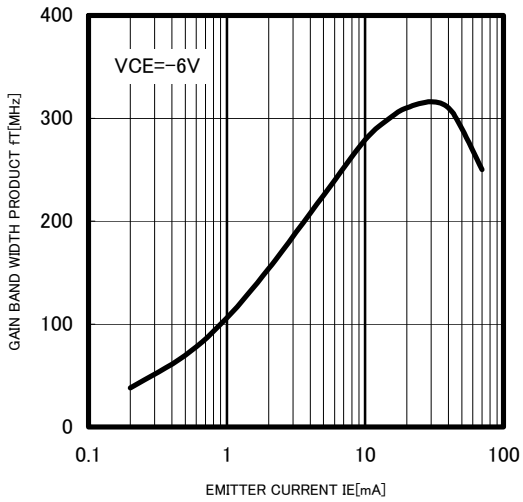
TYPICAL CHARACTERISTICS

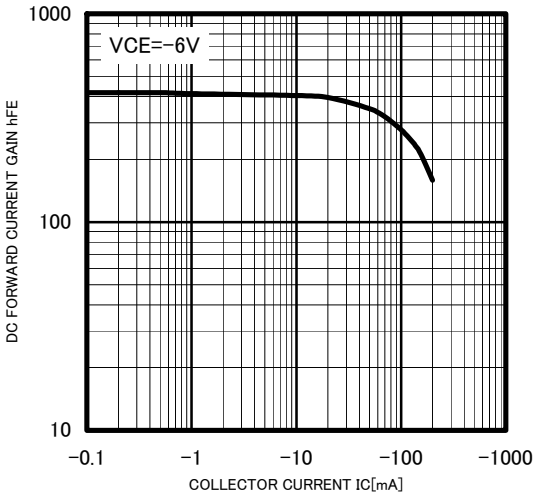
Collector dissipation—AMBIENT TEMPERTURE



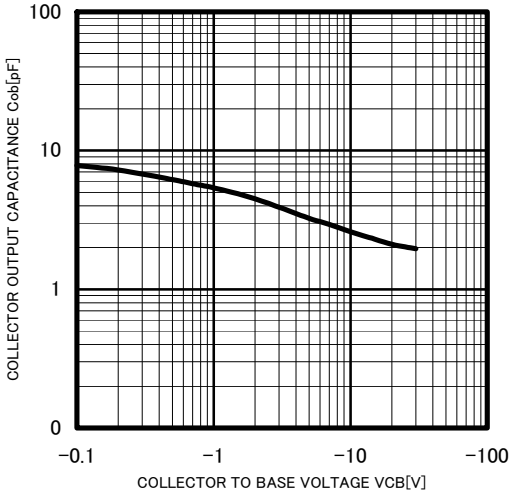
GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



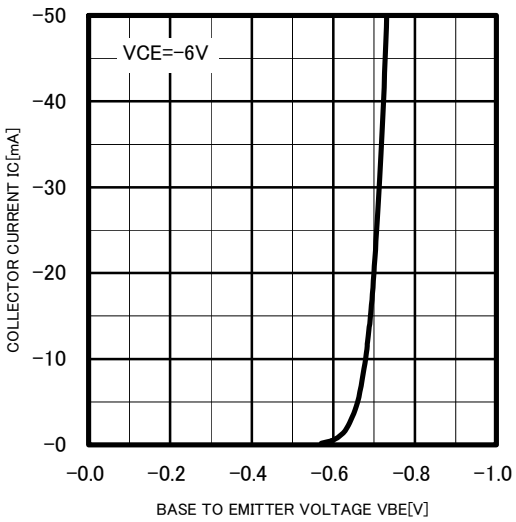
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE



COMMON EMITTER TRANSFER



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