

ISA2191AT2

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

ISA2191AT2 is a super mini package resin sealed silicon PNP epitaxial transistor. It is designed for low frequency application.

Since it is a super-thin flat lead type package, a high-density mounting are possible.

FEATURE

- Super-thin flat lead type package. $t=0.5\text{mm}$
- Excellent linearity of DC forward current gain.
- Low collector to emitter saturation voltage
 $V_{CE(\text{sat})}=-0.3\text{V}$ max (@ $I_C=-100\text{mA}/I_B=-10\text{mA}$)

APPLICATION

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

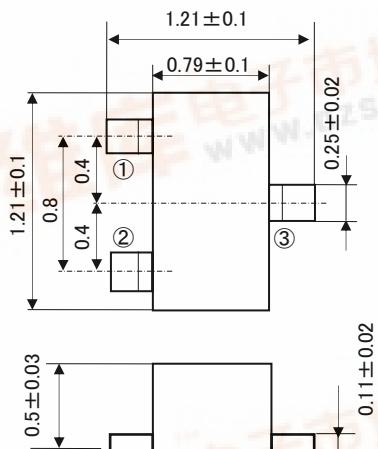
MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

Symbol	Parameter	Ratings	Unit
VCBO	Collector to Base voltage	-60	V
VEBO	Emitter to Base voltage	-6	V
VCEO	Collector to Emitter voltage	-50	V
IC	Collector current	-150	mA
PC	Collector dissipation	125 (※)	mW
Tj	Junction temperature	125	°C
Tstg	Storage temperature	-55~125	°C

※package mounted on $9 \times 19 \times 1\text{mm}$ glass-epoxy substrate.

OUTLINE DRAWING

Unit: mm



JEITA:—

ISAHAYA: T-USM

TERMINAL CONNECTER

①:BASE

②:EMITTER

③:COLLECTOR

MARKING

Abbreviation for Kind

hFE Item

A~F running No.

G~J Month of manufacture

電氣的特性($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Min	Min	
Collector to Emitter Breakdown voltage	V(BR)CEO	$I_C=-100\mu\text{A}, R_{BE}=\infty$	-50	-	-	V
Collector cut off current	ICBO	$V_{CB}=-60\text{V}, I_E=0\text{mA}$	-	-	-0.1	μA
Emitter cut off current	IEBO	$V_{EB}=-6\text{V}, I_C=0\text{mA}$	-	-	-0.1	μA
DC forward current gain	hFE*	$V_{CE}=-6\text{V}, I_C=-1\text{mA}$	150	-	500	-
DC forward current gain	hFE	$V_{CE}=-6\text{V}, I_C=-100\mu\text{A}$	90	-	-	-
C to E saturation voltage	VCE(sat)	$I_C=-100\text{mA}, I_B=-10\text{mA}$	-	-	-0.3	V
Gain bandwidth product	fT	$V_{CE}=-6\text{V}, I_E=10\text{mA}$	-	200	-	MHz
Collector output capacitance	Cob	$V_{CB}=-6\text{V}, I_E=0\text{A}, f=1\text{MHz}$	-	3.0	-	pF

※ It shows hFE classification in below table

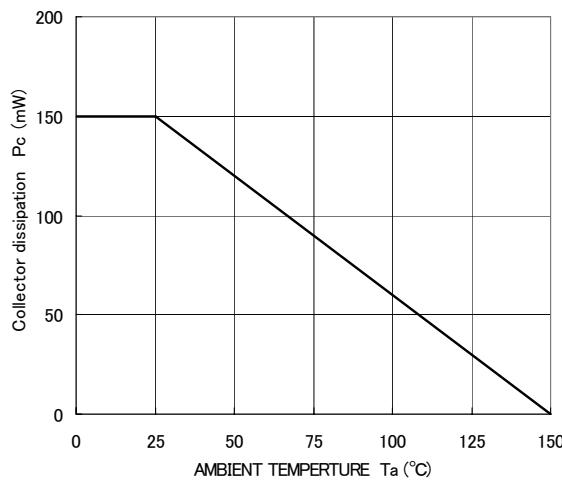
Item	E	F
hFE	150~300	250~500

⟨Transistor⟩

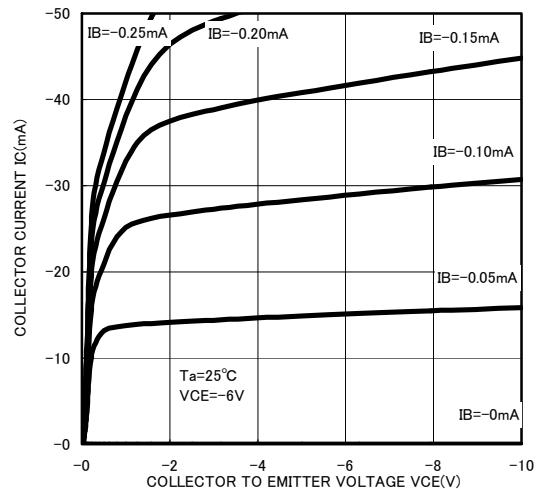
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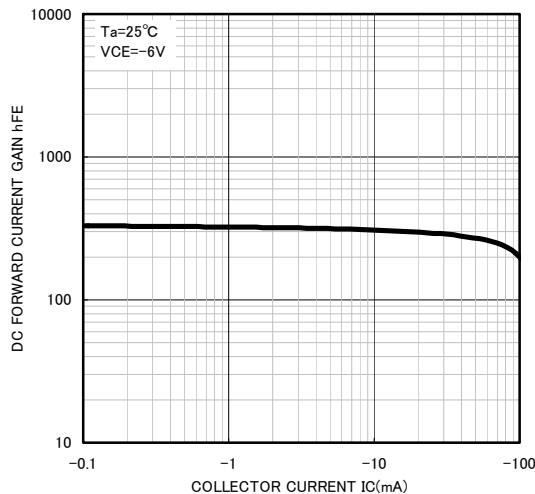
Collector dissipation—AMBIENT TEMPERATURE



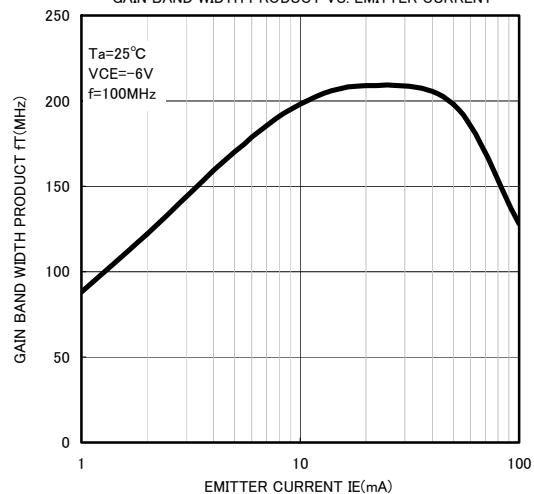
COMMON Emitter Output



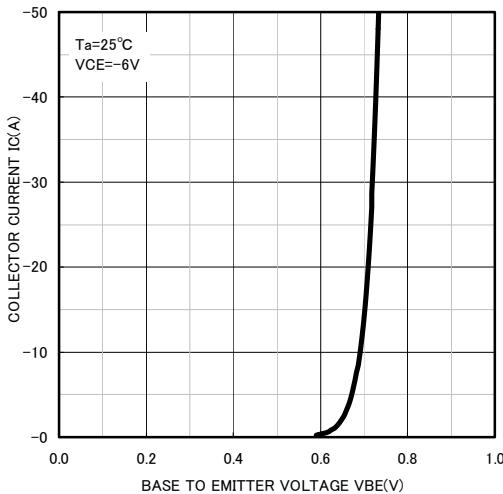
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



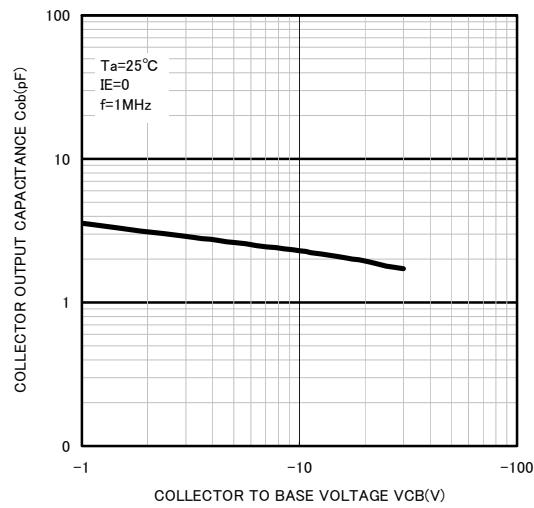
GAIN BAND WIDTH PRODUCT VS. Emitter Current



COMMON Emitter TRANSFER



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE





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