2SA1630

FOR LOW FREQUENCY AMPLIFY APPLICATION
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

Mitsubishi 2SA1630 is a resin sealed silicon PNP epitaxial type transistor designed for low frequency voltage amplify application.

Complementary with 2SC4266.

FEATURE

- Excellent linearity of DC forward current gain
- Low collector saturation voltage

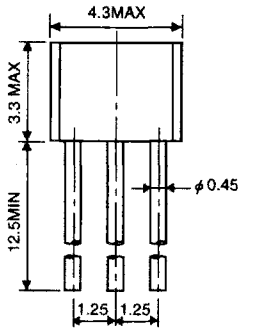
  $V_{CE(sat)}$=-0.3V max (@I_C=-30mA,I_B=-1.5mA)
- Small package

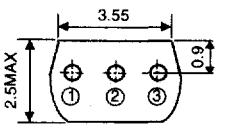
APPLICATION

Small type machine low frequency voltage amplify.

OUTLINE DRAWING

Unit:mm





TERMINAL CONNECTOR

①: EMITTER
②: COLLECTOR EIAJ: —
③: BASE JEDEC: —

Note)
The dimension without tolerance represent central value.

MAXIMUM RATINGS (Ta=25℃)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	-50	V
V_{EBO}	Emitter to Base voltage	-6	V
V_{CEO}	Collector to Emitter voltage	-50	V
I_C	Collector current	-100	mA
P_C	Collector dissipation(Ta=25℃)	300	mW
T_j	Junction temperature	+125	℃
T_{stg}	Storage temperature	-55 to +125	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CEO}$	C to E break down voltage	I_C=-100 μA,R_{BE}=∞	-50			V
I_{CBO}	Collector cut off current	V_{CB}=-50V,I_E=0			-0.5	μA
I_{EBO}	Emitter cut off current	V_{EB}=-4V,I_C=0			-0.5	μA
h_{FE} *	DC forward current gain	V_{CE}=-6V,I_C=-1mA	120		820	—
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=0,f=1MHz		2.5		pF

* : It shows h_{FE} classification in right table.

Item	Q	R	S	T
h_{FE}	120 to 270	180 to 390	270 to 560	390 to 820

MITSUBISHI ELECTRIC

2SA1630

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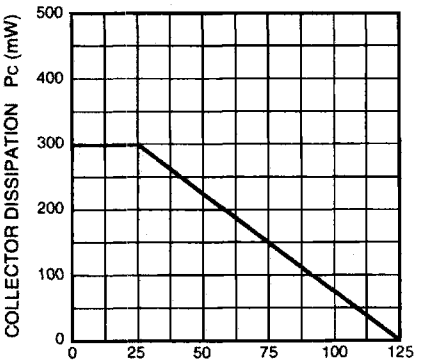
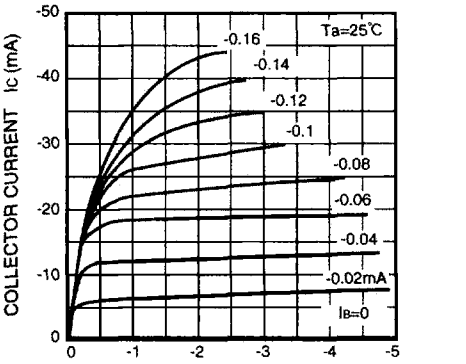
TYPICAL CHARACTERISTICS

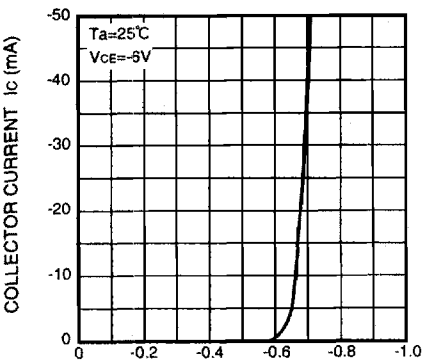
COLLECTOR DISSIPATION VS.AMBIENT TEMPERATURE



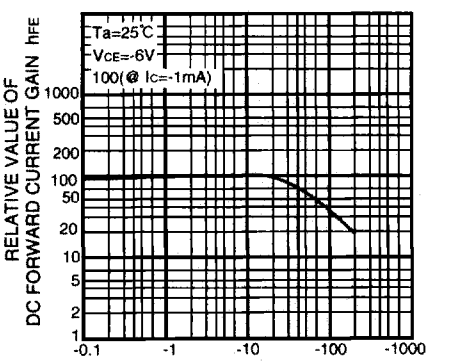
COMMON EMITTER OUTPUT



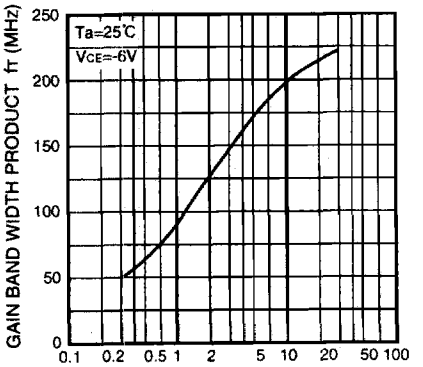
COMMON EMITTER TRANSFER



DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE