

DESCRIPTION

Mitsubishi 2SC3928 is a super mini package silicon NPN epitaxial type transistor. It is designed for low frequency voltage amplify application.

Complementary with 2SA1530.

FEATURE

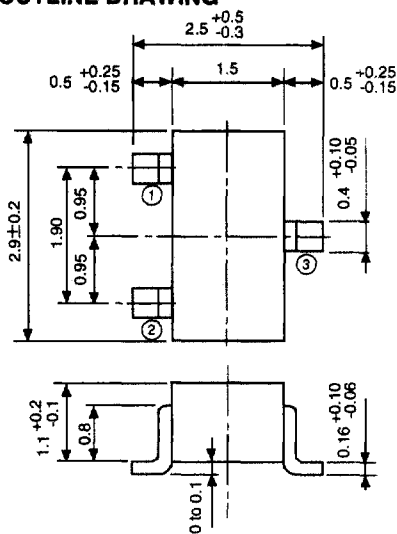
- Low collector to emitter saturation voltage
 $V_{CE(sat)}=0.3V_{max} (@ I_C=30mA, I_B=1.5mA)$
- Excellent linearity of DC forward current gain
- Super mini package for easy mounting

APPLICATION

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

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

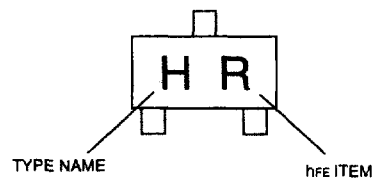
- ① : BASE EIAJ : SC-59
② : EMITTER JEDEC : TO-236 resemblance
③ : COLLECTOR

Note)
The dimension without tolerance represent central value.

MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V _{CB0}	Collector to Base voltage	50	V
V _{EB0}	Emitter to Base voltage	6	V
V _{CE0}	Collector to Emitter voltage	50	V
I _C	Collector current	100	mA
P _C	Collector dissipation (Ta=25°C)	150	mW
T _j	Junction temperature	+125	°C
T _{stg}	Storage temperature	-55 to +125	°C

MARKING



ELECTRICAL CHARACTERISTICS (Ta=25°C)

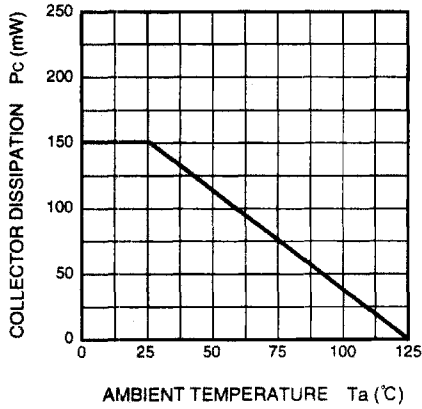
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V _{(BR)CEO}	C to E break down voltage	I _C =100 μA, R _{BE} =∞	50			V
I _{CB0}	Collector cut off current	V _{CB} =50V, I _E =0			0.5	μA
I _{EB0}	Emitter cut off current	V _{EB} =4V, I _C =0			0.5	μA
h _{FE} *	DC forward current gain	V _{CE} =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		2.0		pF

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

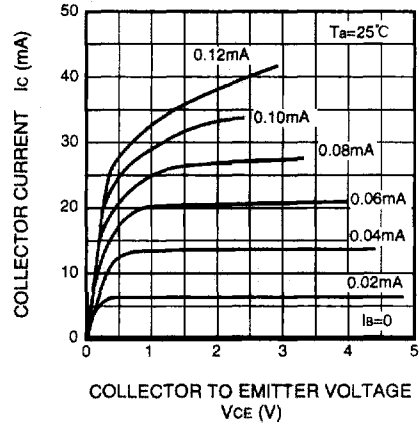
Item	Q	R	S	T
h _{FE}	120 to 270	180 to 390	270 to 560	390 to 820
Marking	HQ	HR	HS	HT

TYPICAL CHARACTERISTICS

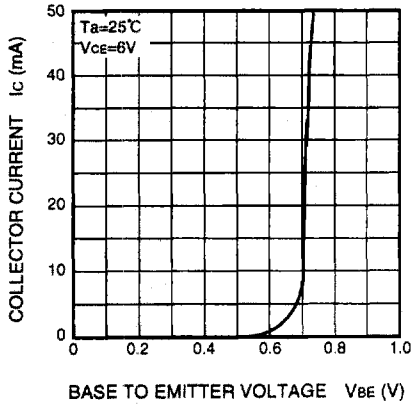
COLLECTOR DISSIPATION VS.
AMBIENT TEMPERATURE



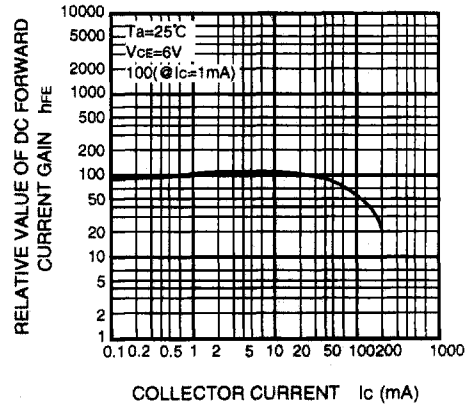
COMMON EMITTER OUTPUT



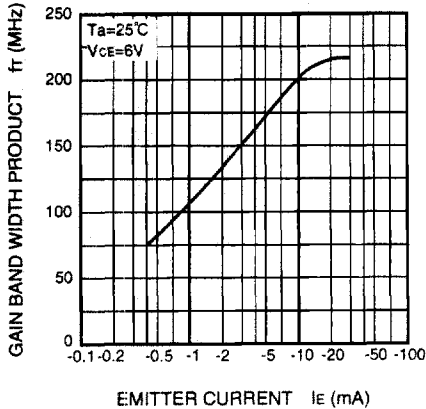
COMMON EMITTER TRANSFER



DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



COLLECTOR OUTPUT CAPACITANCE
VS. COLLECTOR TO BASE VOLTAGE

