

FOR LOW FREQUENCY POWER AMPLIFY APPLICATION
SILICON PNP EPITAXIAL PLANAR TYPE

DESCRIPTION

Mitsubishi 2SB1314 is a silicon PNP epitaxial planar type power transistor using insulated full mold package.

FEATURE

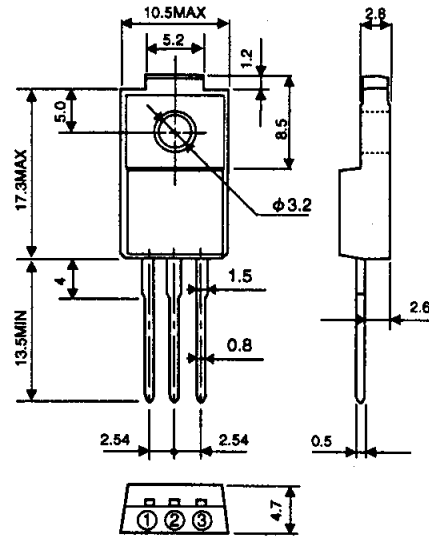
- High collector current $I_C = -3A, I_{CM} = -5A$
- High h_{FE} $h_{FE} = 150$ to 500
- Full mold package with heat sink
- High voltage $V_{CEO} = -60V$
- Low collector to emitter saturation voltage
 $V_{CE(sat)} = -0.5V$ max (@ $I_C = -2A, I_B = -0.2A$)

APPLICATION

Power supply circuit, solenoid drive.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

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

Note)
The dimension without tolerance represent central value.

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

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	-60	V
V_{EBO}	Emitter to Base voltage	-7	V
V_{CEO}	Collector to Emitter voltage	-60	V
I_{CM}	Peak collector current	-5	A
I_C	Collector current	-3	A
P_C	Collector dissipation	($T_a = 25^\circ C$)	2
		($T_c = 25^\circ C$)	15
T_j	Junction temperature	+150	$^\circ C$
T_{stg}	Storage temperature	-55 to +150	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

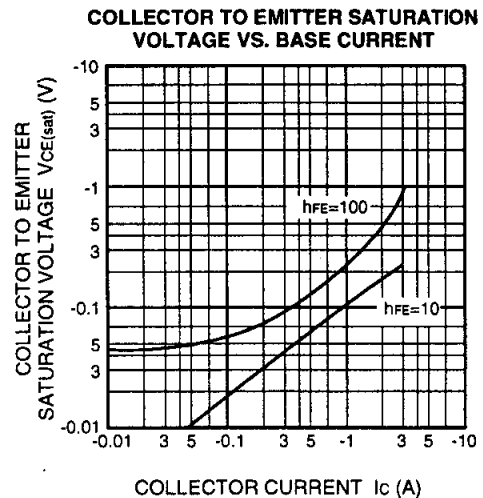
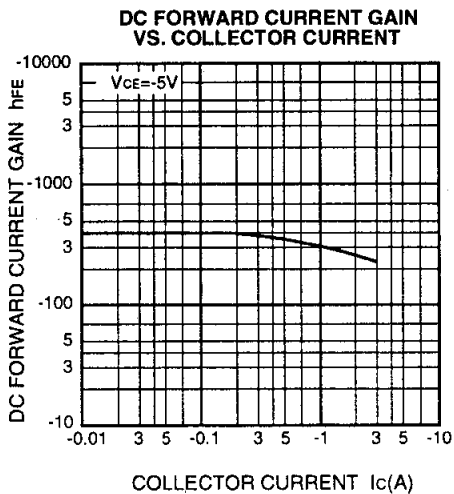
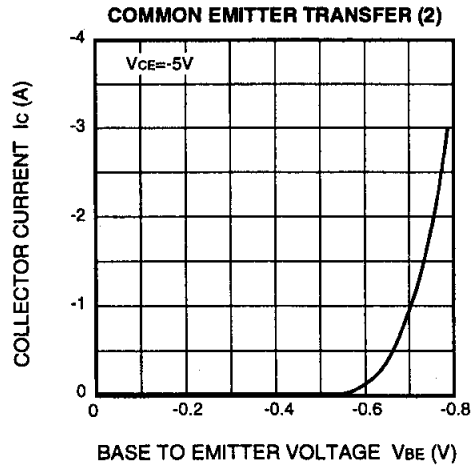
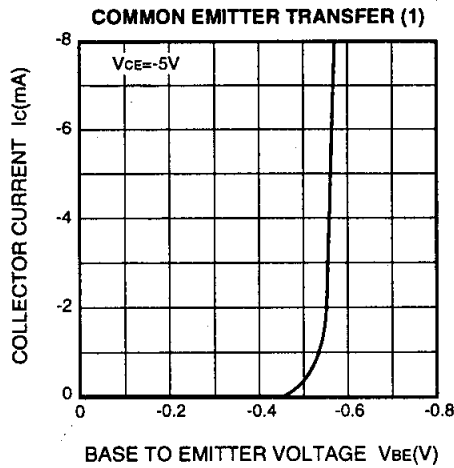
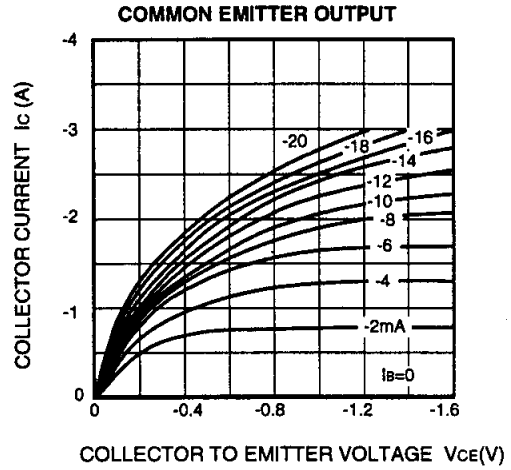
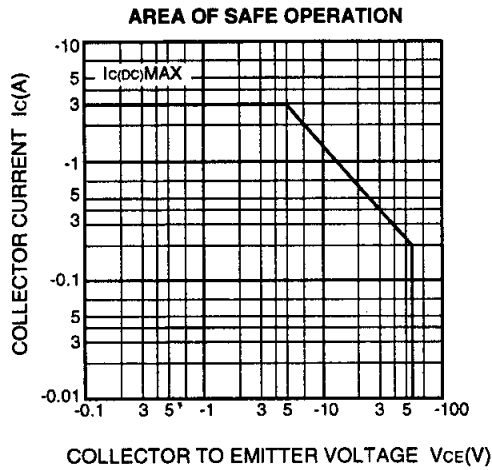
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C = -100 \mu A$	-60			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E = -100 \mu A, I_C = 0$	-7			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C = -1mA, R_{BE} = \infty$	-60			V
I_{CBO}	Collector cut off current	$V_{CB} = -50V, I_E = 0$			-1	μA
I_{EBO}	Emitter cut off current	$V_{EB} = -6V, I_C = 0$			-1	μA
$h_{FE} *$	DC forward current gain	$V_{CE} = -5V, I_C = -500mA$	150		500	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C = -2A, I_B = -0.2A$			-0.5	V
f_t	Gain band width product	$V_{CE} = -6V, I_E = 10mA$		100		MHz

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

Item	E	F
h_{FE}	150 to 300	250 to 500

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TYPICAL CHARACTERISTICS



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