

**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**

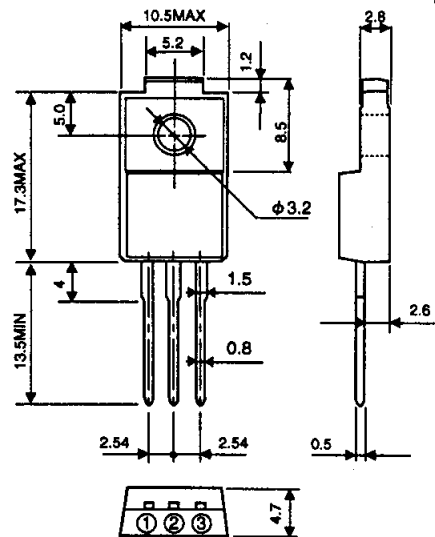
- High collector current  $I_C = -3A, I_{CM} = -5A$
- High  $h_{FE}$   $h_{FE} = 150$  to  $500$
- Full mold package with heat sink
- High voltage  $V_{CEO} = -60V$
- Low collector to emitter saturation voltage  
 $V_{CE(sat)} = -0.5V \text{ max} (@ I_C = -2A, I_B = -0.2A)$

**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 (Ta=25°C)**

Symbol	Parameter	Ratings	Unit
V <sub>CB0</sub>	Collector to Base voltage	-60	V
V <sub>EB0</sub>	Emitter to Base voltage	-7	V
V <sub>CEO</sub>	Collector to Emitter voltage	-60	V
I <sub>CM</sub>	Peak collector current	-5	A
I <sub>C</sub>	Collector current	-3	A
P <sub>C</sub>	Collector dissipation	(Ta=25°C)	2
		(Tc=25°C)	15
T <sub>J</sub>	Junction temperature	+150	°C
T <sub>stg</sub>	Storage temperature	-55 to +150	°C

**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

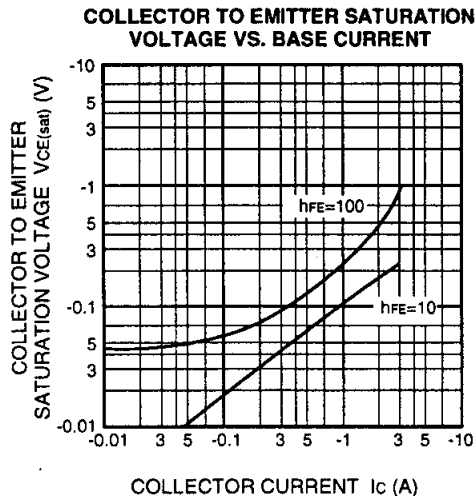
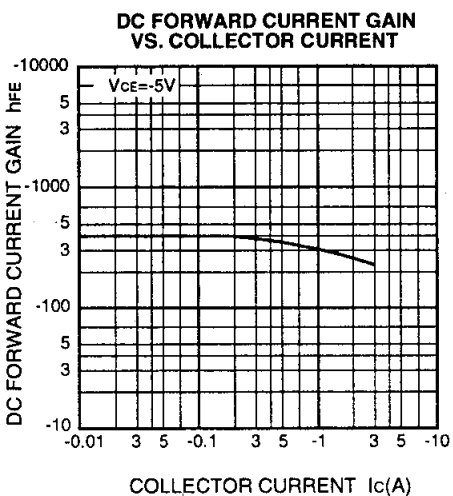
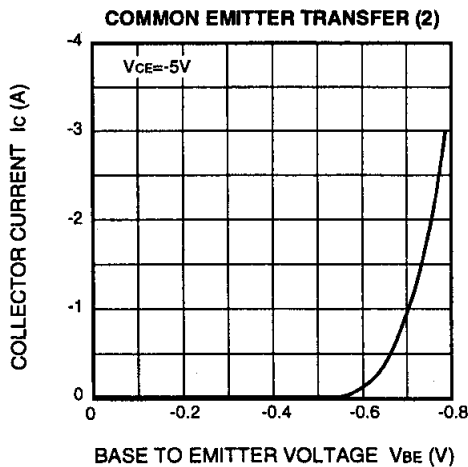
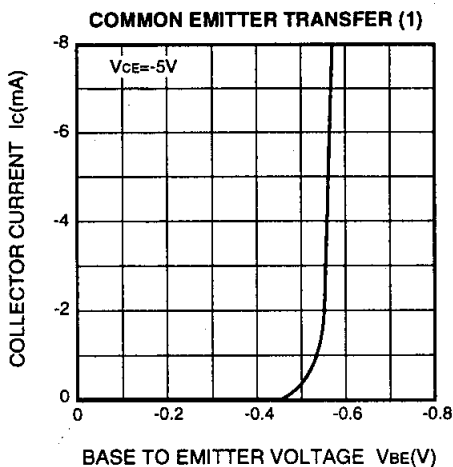
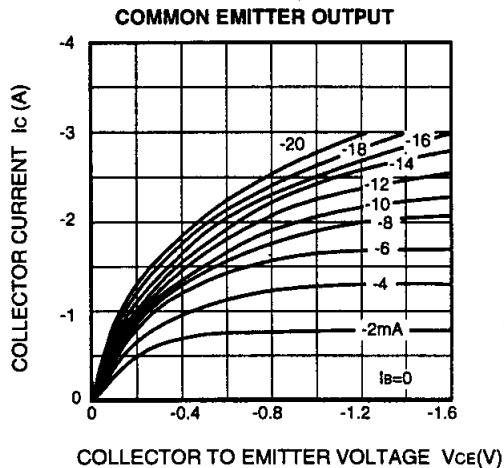
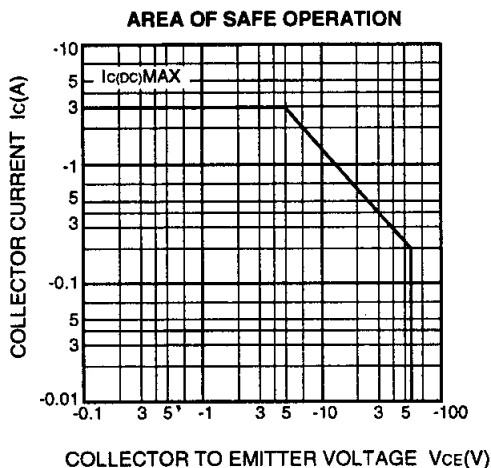
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V <sub>(BR)CBO</sub>	C to B break down voltage	I <sub>C</sub> = -100 μA	-60			V
V <sub>(BR)EBO</sub>	E to B break down voltage	I <sub>E</sub> = -100 μA, I <sub>C</sub> = 0	-7			V
V <sub>(BR)CEO</sub>	C to E break down voltage	I <sub>C</sub> = -1mA, R <sub>BE</sub> = ∞	-60			V
I <sub>CB0</sub>	Collector cut off current	V <sub>CB</sub> = -50V, I <sub>E</sub> = 0			-1	μA
I <sub>EB0</sub>	Emitter cut off current	V <sub>EB</sub> = -6V, I <sub>C</sub> = 0			-1	μA
h <sub>FE</sub> *	DC forward current gain	V <sub>CE</sub> = -5V, I <sub>C</sub> = 500mA	150		500	—
V <sub>CE(sat)</sub>	C to E saturation voltage	I <sub>C</sub> = -2A, I <sub>B</sub> = -0.2A			-0.5	V
ft	Gain band width product	V <sub>CE</sub> = -6V, I <sub>E</sub> = 10mA		100		MHZ

\* : It shows h<sub>FE</sub> classification in right table.

Item	E	F
h <sub>FE</sub>	150 to 300	250 to 500

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**TYPICAL CHARACTERISTICS**



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