

2SD2345G

Silicon NPN epitaxial planar type

For low-frequency amplification

■ Features

- High forward current transfer ratio h_{FE}
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- High emitter-base voltage (Collector open) V_{EBO}
- Low noise voltage NV

■ Package

- Code
SSMini3-F3
- Marking Symbol: 1Z
- Pin Name
1: Base
2: Emitter
3: Collector

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	50	V
Collector-emitter voltage (Base open)	V_{CEO}	40	V
Emitter-base voltage (Collector open)	V_{EBO}	15	V
Collector current	I_C	50	mA
Peak collector current	I_{CP}	100	mA
Collector power dissipation	P_C	125	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

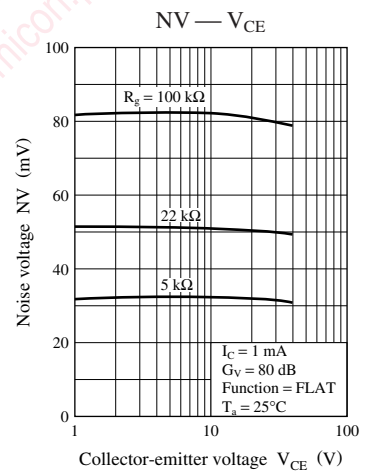
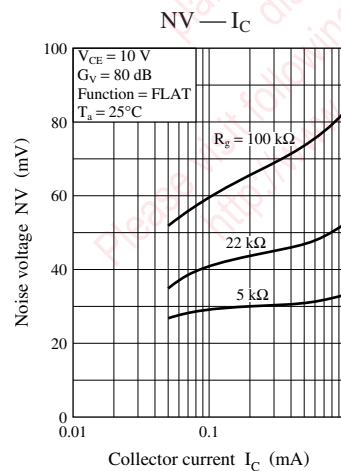
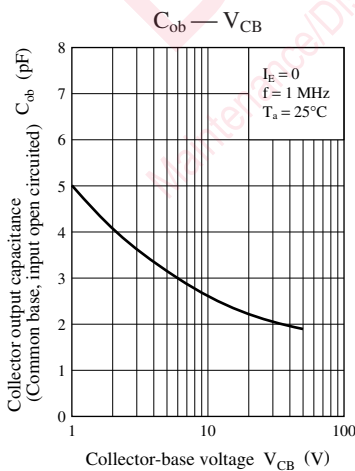
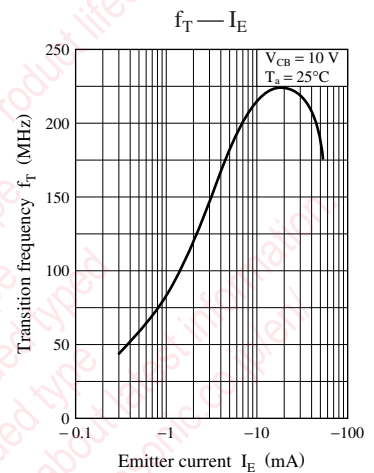
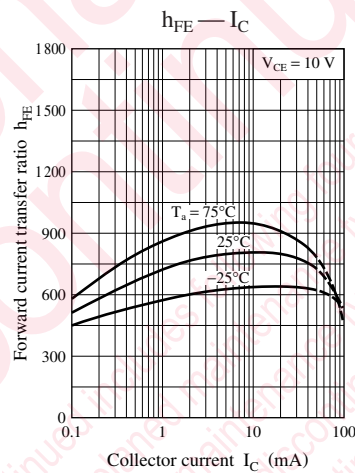
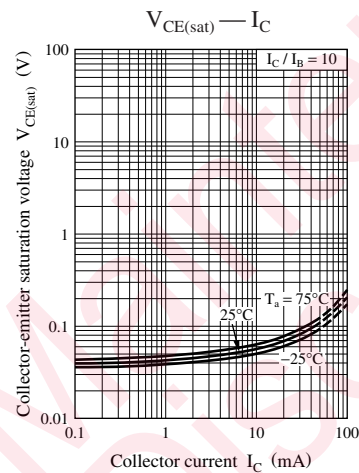
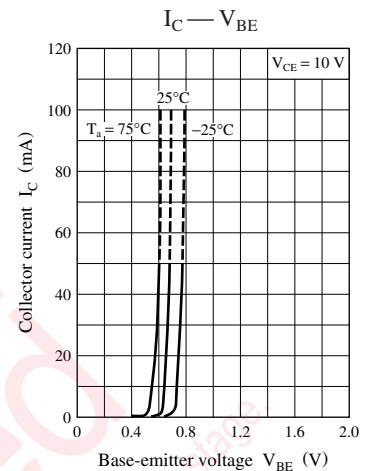
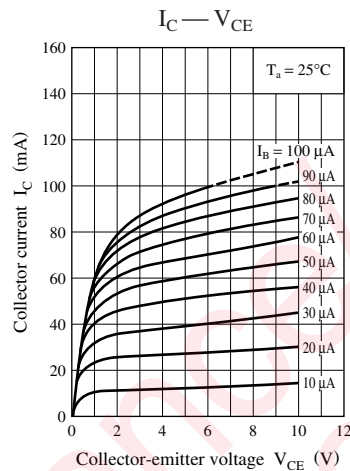
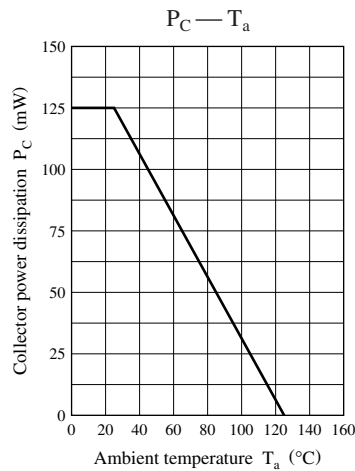
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = 10\ \mu\text{A}$, $I_E = 0$	50			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 1\ \text{mA}$, $I_B = 0$	40			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10\ \mu\text{A}$, $I_C = 0$	15			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 20\ \text{V}$, $I_E = 0$			100	nA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 20\ \text{V}$, $I_B = 0$			1	μA
Forward current transfer ratio *	h_{FE}	$V_{CE} = 10\ \text{V}$, $I_C = 2\ \text{mA}$	400		2000	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10\ \text{mA}$, $I_B = 1\ \text{mA}$		0.05	0.20	V
Transition frequency	f_T	$V_{CB} = 10\ \text{V}$, $I_E = -2\ \text{mA}$, $f = 200\ \text{MHz}$		120		MHz

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

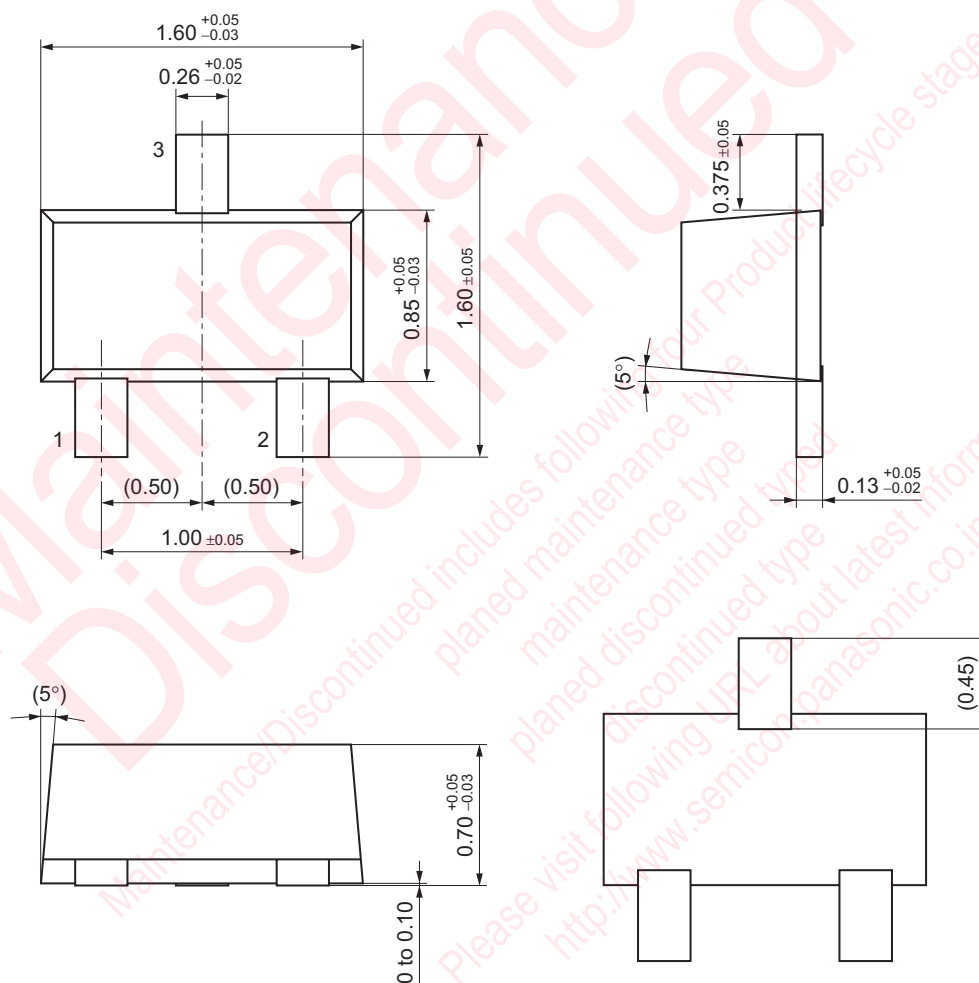
2. *: Rank classification

Rank	R	S	T
h_{FE}	400 to 800	600 to 1200	1000 to 2000



SSMini3-F3

Unit: mm



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