

UNR32A5G

Silicon NPN epitaxial planar type

For digital circuits

■ Features

- Suitable for high-density mounting and downsizing of the equipment
- Contribute to low power consumption

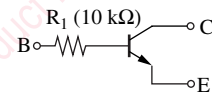
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	50	V
Collector-emitter voltage (Base open)	V_{CEO}	50	V
Collector current	I_{C}	80	mA
Total power dissipation	P_{T}	100	mW
Junction temperature	T_{j}	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

■ Package

- Code
SSSMINI3-F2
- Marking Symbol: HC
- Pin Name
1: Base
2: Emitter
3: Collector

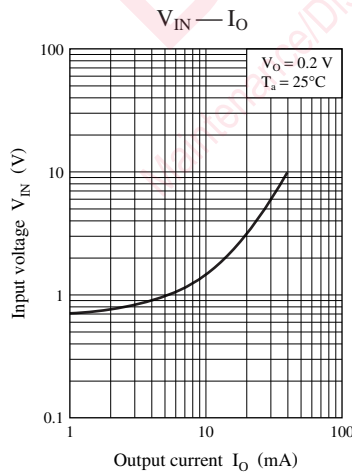
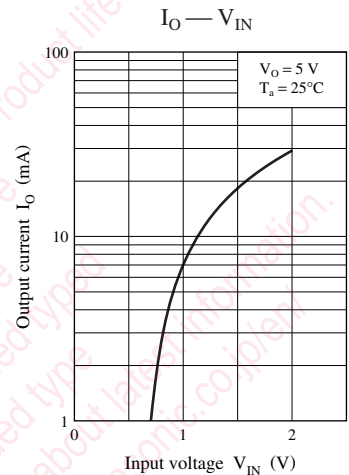
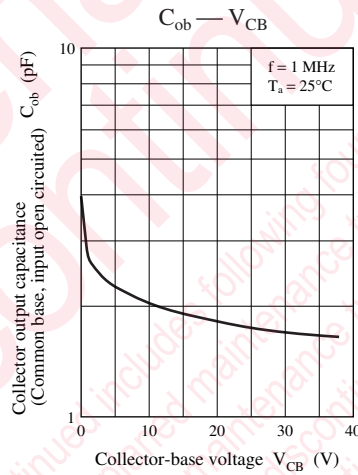
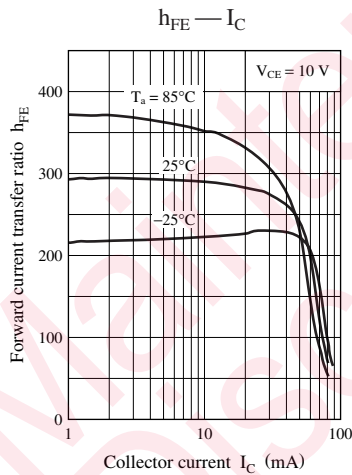
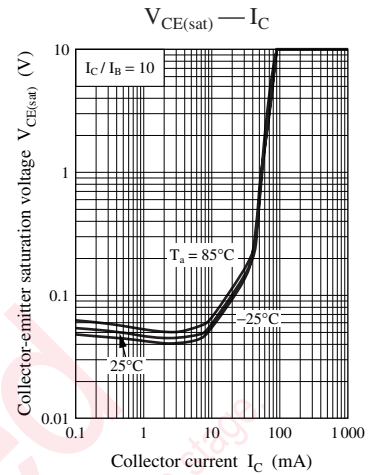
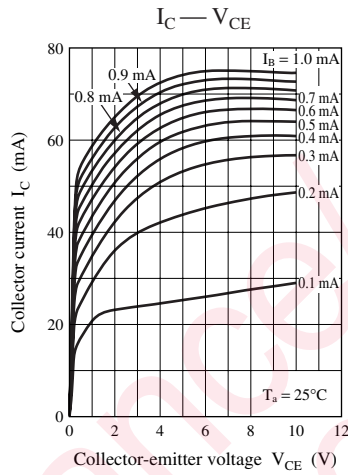
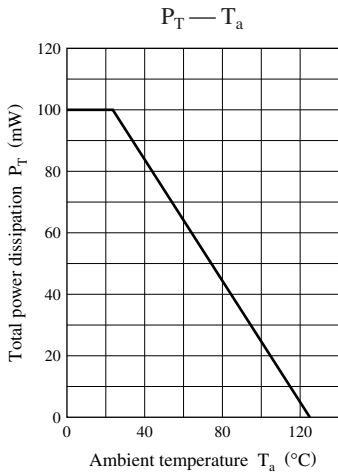
■ Internal Connection



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

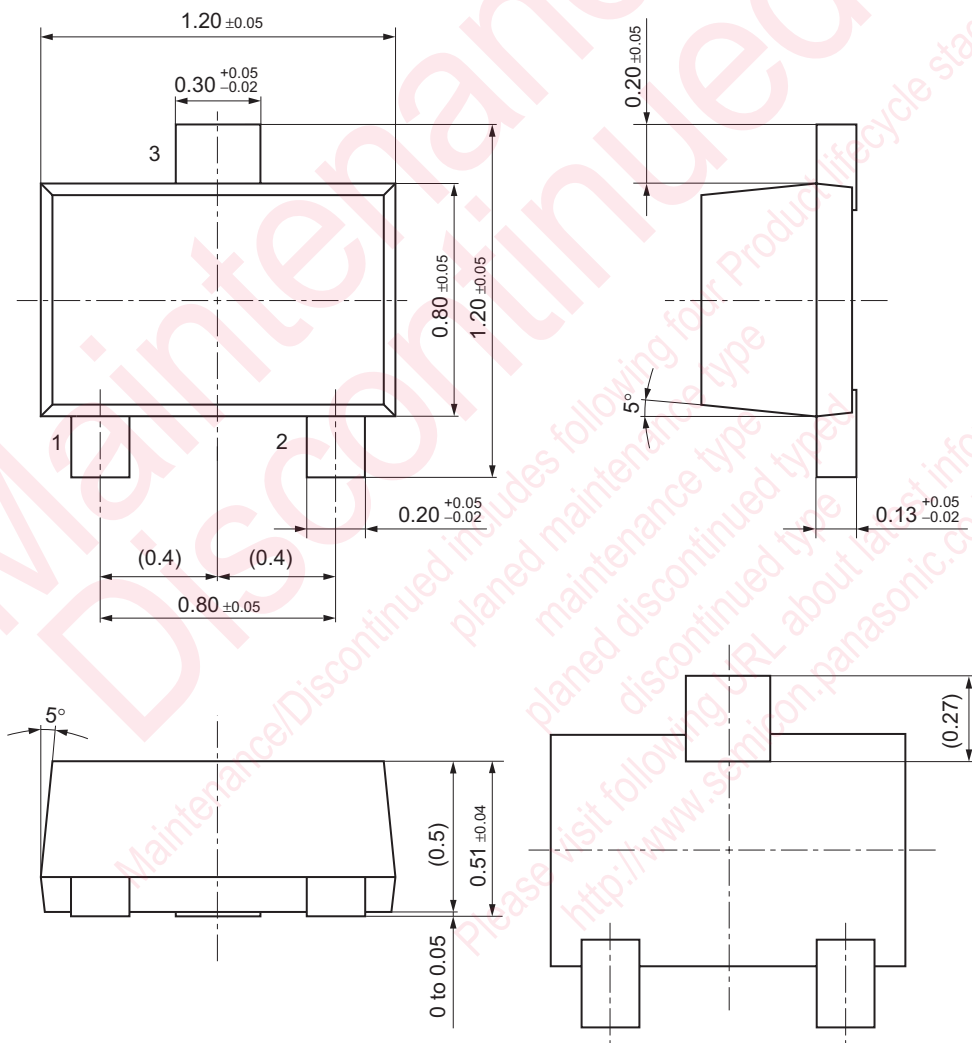
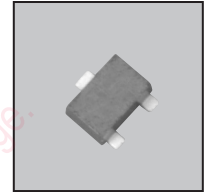
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_{\text{C}} = 10\ \mu\text{A}, I_{\text{E}} = 0$	50			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_{\text{C}} = 2\ \text{mA}, I_{\text{B}} = 0$	50			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\text{CB}} = 50\ \text{V}, I_{\text{E}} = 0$			0.1	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{\text{CE}} = 50\ \text{V}, I_{\text{B}} = 0$			0.5	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{\text{EB}} = 6\ \text{V}, I_{\text{C}} = 0$			0.01	mA
Forward current transfer ratio	h_{FE}	$V_{\text{CE}} = 10\ \text{V}, I_{\text{C}} = 5\ \text{mA}$	160		460	—
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = 10\ \text{mA}, I_{\text{B}} = 0.3\ \text{mA}$			0.25	V
Output voltage high-level	V_{OH}	$V_{\text{CC}} = 5\ \text{V}, V_{\text{B}} = 0.5\ \text{V}, R_{\text{L}} = 1\ \text{k}\Omega$	4.9			V
Output voltage low-level	V_{OL}	$V_{\text{CC}} = 5\ \text{V}, V_{\text{B}} = 2.5\ \text{V}, R_{\text{L}} = 1\ \text{k}\Omega$			0.2	V
Input resistance	R_{I}		-30%	10	+30%	$\text{k}\Omega$
Transition frequency	f_{T}	$V_{\text{CB}} = 10\ \text{V}, I_{\text{E}} = -2\ \text{mA}, f = 200\ \text{MHz}$		150		MHz

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



SSSMini3-F2

Unit: mm



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