Composite Transistors

Panasonic

NP0J1A3

Silicon PNP epitaxial planar type

For digital circuits

Features

- SSS-Mini type 6-pin package, reduction of the mounting area and assembly cost by half
- Maximum package height (0.4 mm) contributes to develop thinner equipments

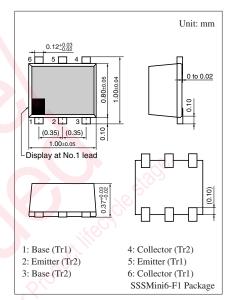
Basic Part Number

• UNR11A3 \times 2

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

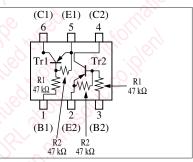
Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V _{CBO}	-50	v	
Collector-emitter voltage (Base open)	V _{CEO}	-50	V	
Collector current	I _C	-80	mA	
Total power dissipation *	P _T	125	mW	
Junction temperature	Tj	125	°C	
Storage temperature	T _{stg}	-55 to +125	°C	

Note) *: Measuring on substrate at 17 mm \times 10 mm \times 1 mm



Marking Symbol: 1L

Internal Connection



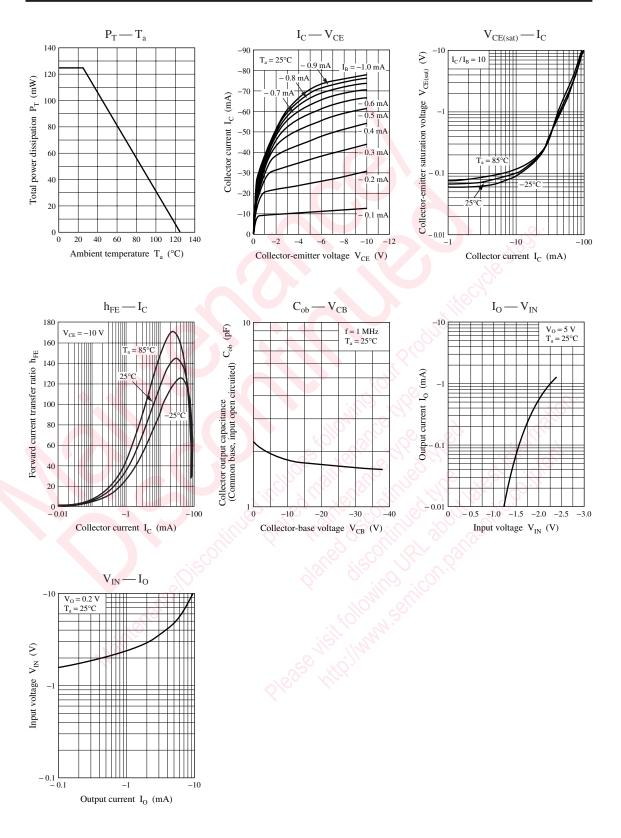
Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_{\rm C} = -10 \ \mu A, I_{\rm E} = 0$	-50			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_{\rm C} = -2 \text{ mA}, I_{\rm B} = 0$	-50			V
Collector-base cutoff current (Emitter open)	I _{CBO}	$V_{CB} = -50 \text{ V}, I_E = 0$			- 0.1	μΑ
Collector-emitter cutoff current (Base open)	I _{CEO}	$V_{CE} = -50 \text{ V}, I_B = 0$			- 0.5	μΑ
Emitter-base cutoff current (Collector open)	I _{EBO}	$V_{EB} = -6 V, I_C = 0$			- 0.1	mA
Forward current transfer ratio	h _{FE}	$V_{CE} = -10 \text{ V}, I_C = -5 \text{ mA}$	80			_
Collector-emitter saturation voltage	V _{CE(sat)}	$I_{\rm C} = -10 \text{ mA}, I_{\rm B} = -0.3 \text{ mA}$			- 0.25	V
Output voltage high level	V _{OH}	$V_{CC} = -5 \text{ V}, V_B = -0.5 \text{ V}, R_L = 1 \text{ k}\Omega$	-4.9			V
Output voltage low level	V _{OL}	$V_{CC} = -5 \text{ V}, V_B = -3.5 \text{ V}, R_L = 1 \text{ k}\Omega$			- 0.2	V
Input resistance	R ₁		-30%	47	+30%	kΩ
Resistance ratio	R ₁ / R ₂		0.8	1.0	1.2	
Transition frequency	f _T	$V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 200 \text{ MHz}$		80		MHz

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

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