

# PUB4112 (PU4112)

Silicon PNP epitaxial planar type

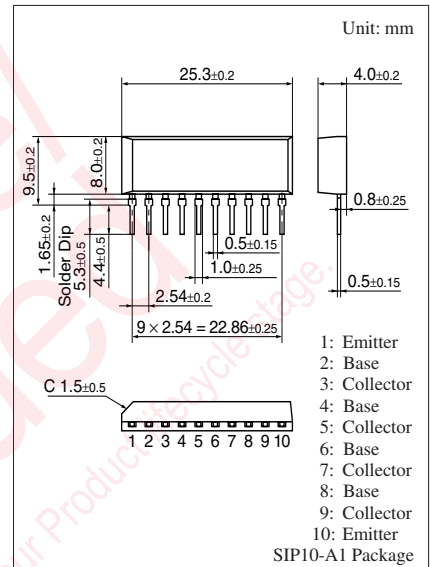
For power amplification/switching  
Complementary to PUB4212 (PU4212)

■ Features

- High forward current transfer ratio  $h_{FE}$  which has satisfactory linearity
- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- NPN 4 elements

■ Absolute Maximum Ratings  $T_C = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	130	V
Collector-emitter voltage (Base open)	$V_{CEO}$	80	V
Emitter-base voltage (Collector open)	$V_{EBO}$	7	V
Collector current	$I_C$	3	A
Peak collector current	$I_{CP}$	6	A
Collector power dissipation	$P_C$	15	W
		$T_a = 25^\circ C$	
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

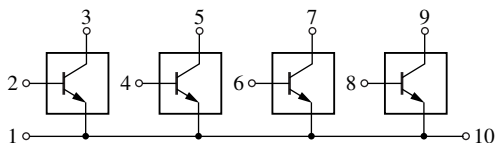


■ Electrical Characteristics  $T_C = 25^\circ C \pm 3^\circ C$

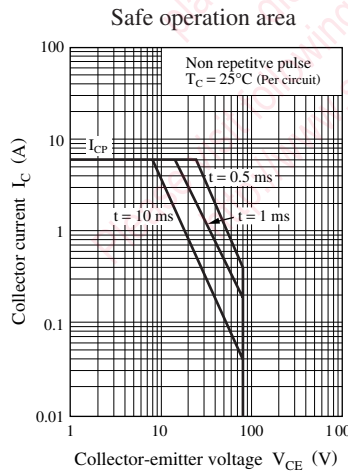
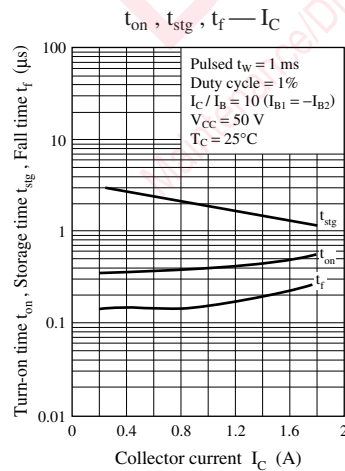
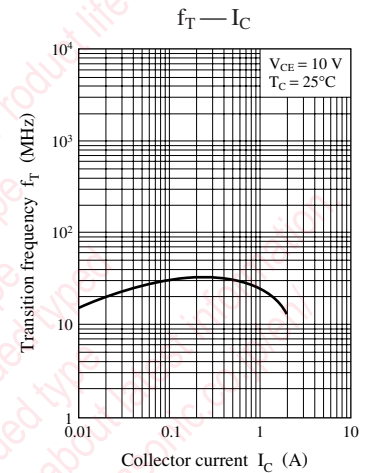
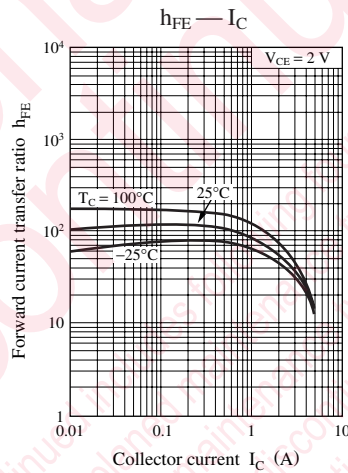
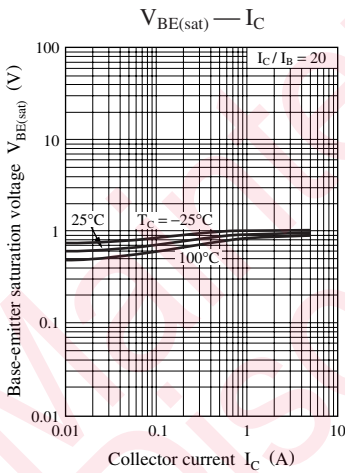
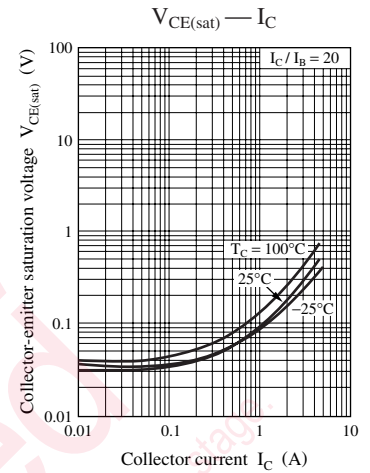
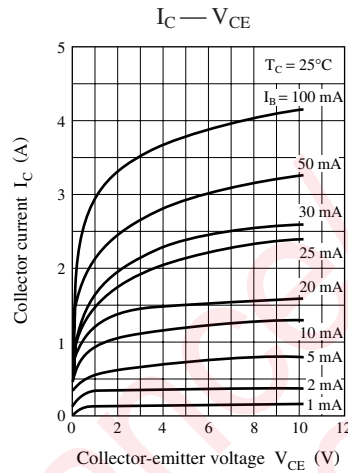
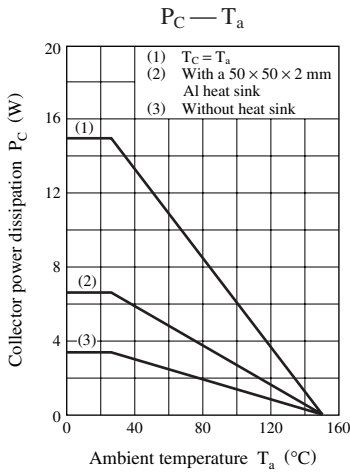
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = 10\text{ mA}, I_B = 0$	80			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = 100\text{ V}, I_E = 0$			10	$\mu A$
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = 5\text{ V}, I_C = 0$			50	$\mu A$
Forward current transfer ratio	$h_{FE1}$	$V_{CE} = 2\text{ V}, I_C = 0.1\text{ A}$	45			—
		$V_{CE} = 2\text{ V}, I_C = 0.5\text{ A}$	60	260		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2\text{ A}, I_B = 0.1\text{ A}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2\text{ A}, I_B = 0.1\text{ A}$			1.5	V
Transition frequency	$f_T$	$V_{CE} = 10\text{ V}, I_C = 0.5\text{ A}, f = 10\text{ MHz}$		30		MHz
Turn-on time	$t_{on}$	$I_C = 0.5\text{ A}$		0.5		$\mu s$
Storage time	$t_{stg}$	$I_{B1} = 50\text{ mA}, I_{B2} = -50\text{ mA}$		2.5		$\mu s$
Fall time	$t_f$	$V_{CC} = 50\text{ V}$		0.15		$\mu s$

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

■ Internal Connection



Note) The part number in the parenthesis shows conventional part number.



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