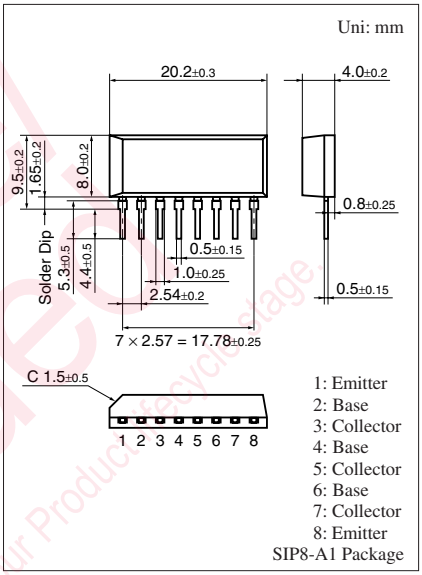
PUA3273 (PU3273)

Silicon PNP triple diffusion planar type darlington

For power amplification
Complementary to PUA3173 (PU3173)



■ Features

- High forward current transfer ratio h_{FE}
- High-speed switching
- PNP 3 elements

■ Absolute Maximum Ratings $T_C = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	−150	V
Collector-emitter voltage (Base open)	V_{CEO}	−100	V
Emitter-base voltage (Collector open)	V_{EBO}	−5	V
Collector current	I_C	−4	A
Peak collector current	I_{CP}	−8	A
Collector power dissipation	P_C	15	W
$T_a = 25°C$		2.4	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

■ Electrical Characteristics $T_C = 25°C \pm 3°C$

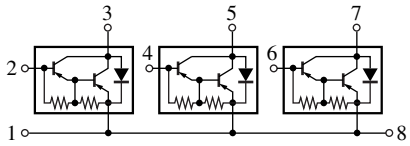
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -10$ mA, $I_B = 0$	−100			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -150$ V, $I_E = 0$			−100	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -80$ V, $I_B = 0$			−100	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = -5$ V, $I_C = 0$			−5	mA
Forward current transfer ratio	h_{FE1} *	$V_{CE} = -4$ V, $I_C = -2$ A	1 000		10 000	—
	h_{FE2}	$V_{CE} = -4$ V, $I_C = -4$ A	500			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -4$ A, $I_B = -16$ mA			−2.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -4$ A, $I_B = -16$ mA			−2.5	V
Transition frequency	f_T	$V_{CE} = -10$ V, $I_C = -0.5$ A, f = 1 MHz		20		MHz
Turn-on time	t_{on}	$I_C = -4$ A		0.32		μs
Storage time	t_{stg}	$I_{B1} = -16$ mA, $I_{B2} = 16$ mA		1.70		μs
Fall time	t_f	$V_{CC} = -50$ V		1.05		μs

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

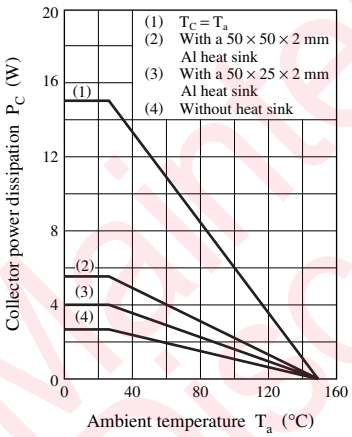
Rank	Free	P	Q
h_{FE}	1 000 to 10 000	2 000 to 10 000	1 000 to 5 000

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

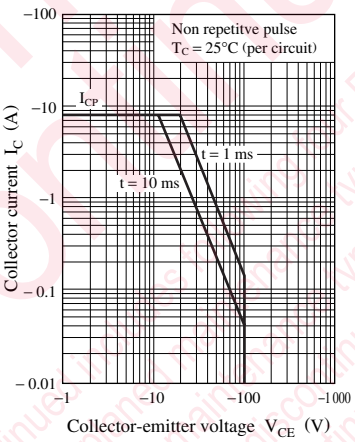
■ Internal Connection



P_C — T_a



Safe operation area



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