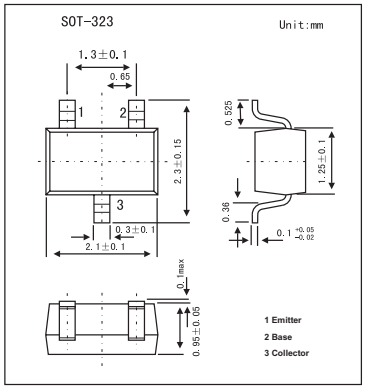
PNP General Purpose Transistor

2PB1219A



■ Features

- High current (max. 500 mA)
- Low voltage (max. 50 V)
- Low collector-emitter saturation voltage (max. 600 mV).

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-60	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-500	mA
Peak collector current	I_{CM}	-1	A
Peak base current	I_{BM}	-200	mA
Total power dissipation	P_{tot}	200	mW
Storage temperature	T_{stg}	-65 to +150	℃
Junction temperature	T_j	150	℃
Operating ambient temperature	T_{amb}	-65 to +150	℃
Thermal resistance from junction to ambient	$R_{th\ j\text{-}a}$	625	K/W

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	I_E = 0; V_{CB} = -20 V			-100	nA
		I_E = 0; V_{CB} = -20 V; T_j = 150 ℃			-5	μA
Emitter cut-off current	I_{EBO}	I_C = 0; V_{EB} = -4 V			-100	nA
DC current gain 2PB1219AQ 2PB1219AR 2PB1219AS	h_{FE}	I_C = -150 mA; V_{CE} = -10 V; *	85 120 170	170 240 340		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -300 mA; I_B = -30 mA; *			-600	mV
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = -300 mA; I_B = -30 mA; *			-1.5	V
Collector capacitance	C_c	I_E = ie = 0; V_{CB} = -10 V; f = 1 MHz			15	pF
Transition frequency 2PB1219AQ 2PB1219AR 2PB1219AS	f_T	I_C = 50 mA; V_{CE} = -10 V;f = 100 MHz;*	100 120 140			MHz

* Pulse test: tp ⩽ 300 μs; δ ⩽ 0.02.

■ h_{FE} Classification

TYPE	2PB1219AQ	2PB1219AR	2PB1219AS
Marking	DQ	DR	DS