

PNP Transistors

2SA1871

■ Features

- High voltage
- Fast switching speed
- Complementary transistor with 2SC4942

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	-600	V
Collector - Emitter Voltage	V _{CE0}	-600	
Emitter - Base Voltage	V _{EB0}	-7	
Collector Current - Continuous	I _C	-1	A
Collector Current - Pulse (Note.1)	I _{CP}	-2	
Collector Power Dissipation	P _C	2	W
Junction Temperature	T _J	150	°C
Storage Temperature range	T _{stg}	-55 to 150	

Note.1: PW ≤ 10ms, Duty Cycle ≤ 5%

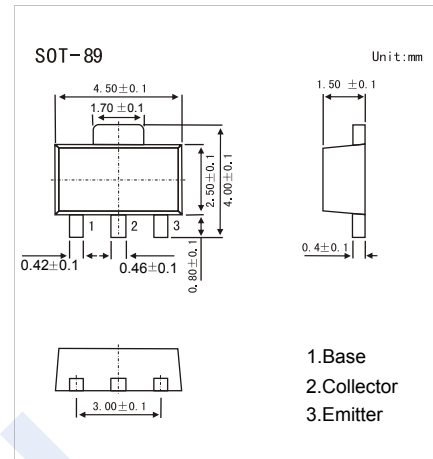
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _C = -100 μA, I _E = 0	-600			V
Collector- emitter breakdown voltage	V _{CE0}	I _C = -1 mA, I _B = 0	-600			
Emitter - base breakdown voltage	V _{EB0}	I _E = -100 μA, I _C = 0	-7			
Collector-base cut-off current	I _{CB0}	V _{CB} = -600 V, I _E = 0			-10	μA
Emitter cut-off current	I _{EB0}	V _{EB} = -7V, I _C = 0			-10	
Collector-emitter saturation voltage (Note.1)	V _{CE(sat)}	I _C = -300 mA, I _B = -60mA		-0.3	-1	V
Base - emitter saturation voltage (Note.1)	V _{BE(sat)}	I _C = -300 mA, I _B = -60mA		-0.85	-1.2	
DC current gain (Note.1)	h _{FE(1)}	V _{CE} = -5V, I _C = -100mA	30	60	120	
	h _{FE(2)}	V _{CE} = -5V, I _C = -500mA	5	20		
Turn-on time	t _{on}	V _{CC} = -250V, I _C = -0.5A, I _{B1} = -I _{B2} = -0.1A, R _L = 500Ω		0.1	0.5	μs
Storage time	t _{stg}			3.5	5	
Turn-off time	t _{off}			0.1	0.5	
Collector output capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz		40		pF
Transition frequency	f _T	V _{CE} = -10V, I _E = 50mA		30		MHz

Note.1 : Pulsed: PW ≤ 350μs, Duty Cycle ≤ 2%

■ Classification of h_{FE(1)}

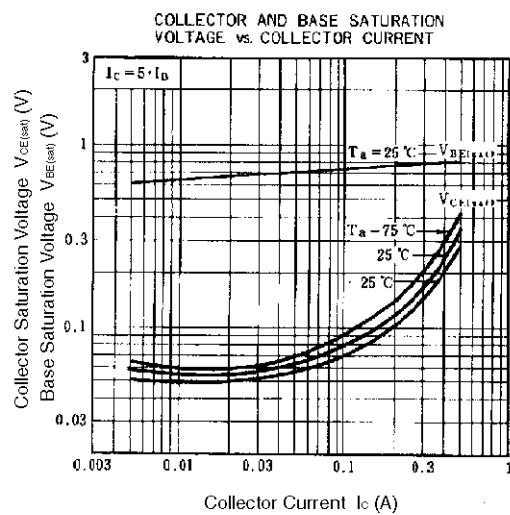
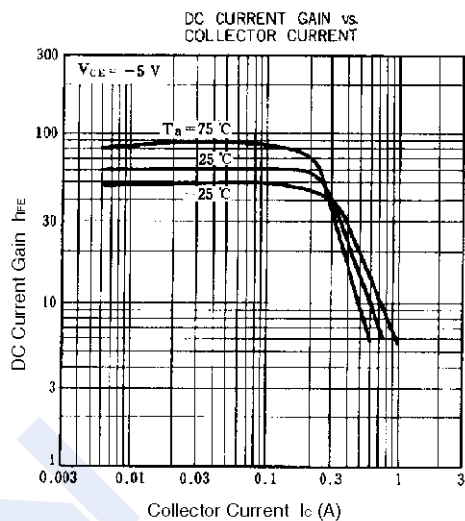
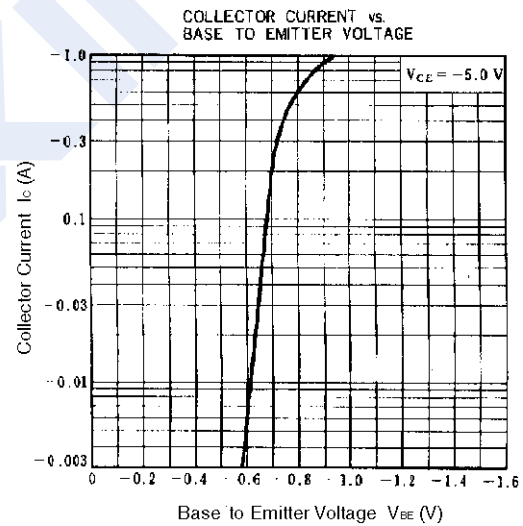
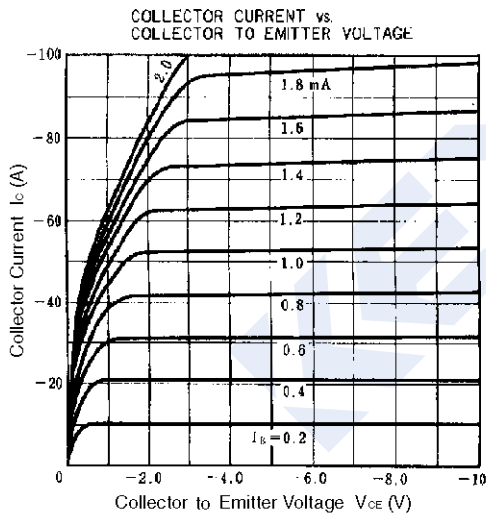
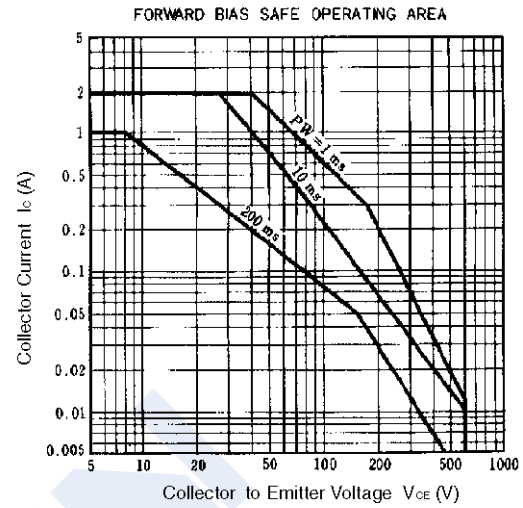
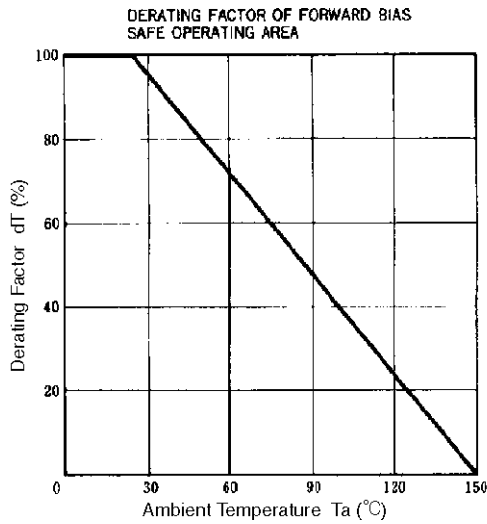
Type	2SA1871-A1	2SA1871-A2	2SA1871-A3
Range	30-60	40-80	60-120
Marking	GA1	GA2	GA3



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■ Typical Characteristics



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