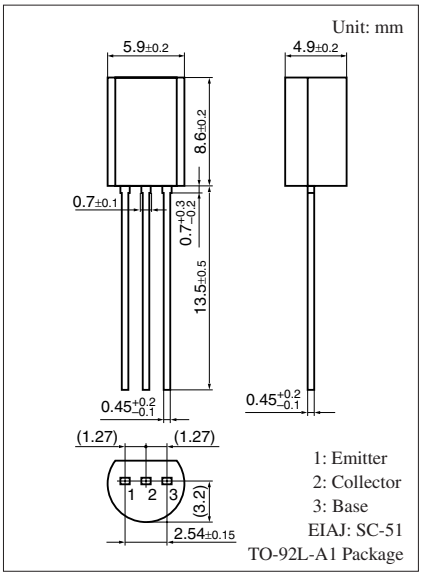
2SC1573, 2SC1573A, 2SC1573B

Silicon NPN triple diffusion planar type

For high breakdown voltage general amplification
For small TV video output
Complementary to 2SC1573 and 2SA0879



■ Features

- High collector-emitter voltage (Base open) V_{CEO}
- High transition frequency f_T

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter		Symbol	Rating	Unit
Collector-base voltage (Emitter open)	2SC1573	V_{CBO}	250	V
	2SC1573A		300	
	2SC1573B		400	
Collector-emitter voltage (Base open)	2SC1573	V_{CEO}	200	V
	2SC1573A		300	
	2SC1573B		400	
Emitter-base voltage (Collector open)	2SC1573	V_{EBO}	5	V
	2SC1573A		7	
	2SC1573B			
Collector current		I_C	70	mA
Peak collector current		I_{CP}	100	mA
Collector power dissipation		P_C	1	W
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

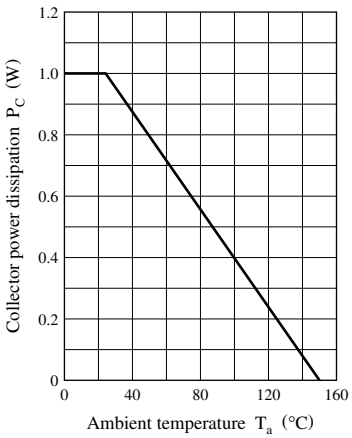
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	2SC1573	V_{CEO}	I_C = 100 µA, I_B = 0	200			V
	2SC1573A			300			
	2SC1573B			400			
Emitter-base voltage (Collector open)	2SC1573	V_{EBO}	I_E = 1 µA, I_C = 0	5			V
	2SC1573A			7			
	2SC1573B			7			
Collector-base cut-off current (Emitter open)	2SC1573	I_{CBO}	V_{CB} = 12 V, I_E = 0			2	µA
	2SC1573A						
	2SC1573B		V_{CB} = 200 V, I_E = 0			10	
Forward current transfer ratio	2SC1573	h_{FE} *	V_{CE} = 10 V, I_C = 5 mA	60		220	—
	2SC1573A			30		220	
	2SC1573B						
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C = 50 mA, I_B = 5 mA			1.2	V
Transition frequency		f_T	V_{CB} = 10 V, I_E = −10 mA, f = 200 MHz	50	80		MHz
Collector output capacitance (Common base, input open circuited)	2SC1573	C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz		5	10	pF
	2SC1573A				4	8	
	2SC1573B				4	8	

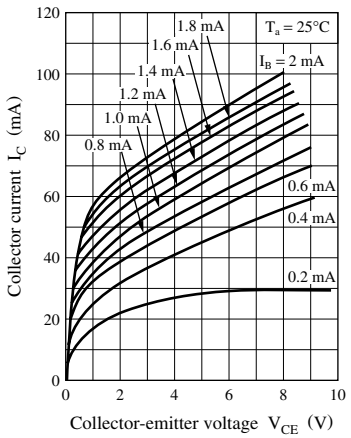
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification (2SC1573 for ranks Q and R only)

Rank	P	Q	R
h_{FE}	30 to 100	60 to 150	100 to 220

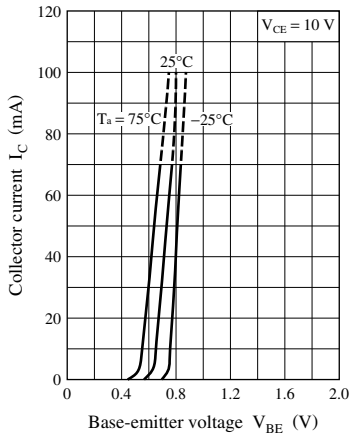
P_C — T_a



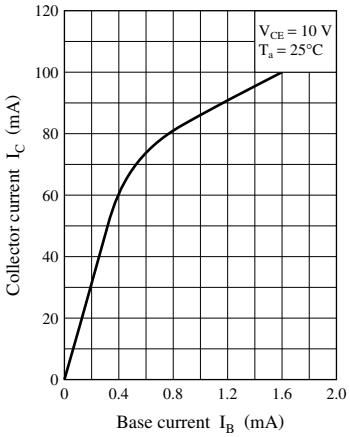
I_C — V_{CE}



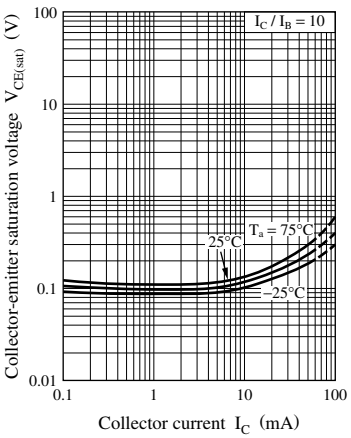
I_C — V_{BE}



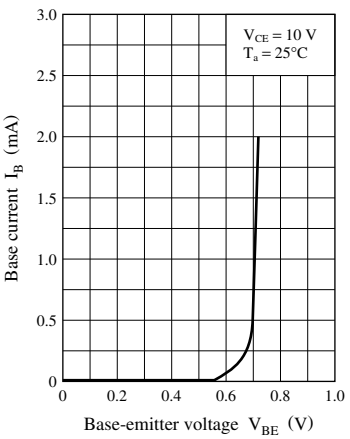
I_C — I_B



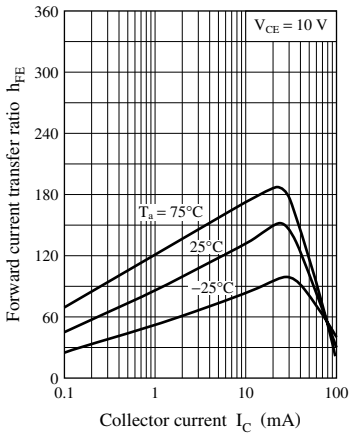
$V_{CE(sat)}$ — I_C



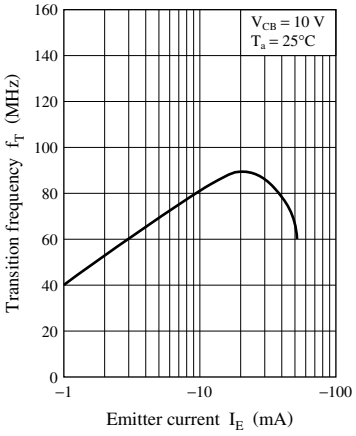
I_B — V_{BE}



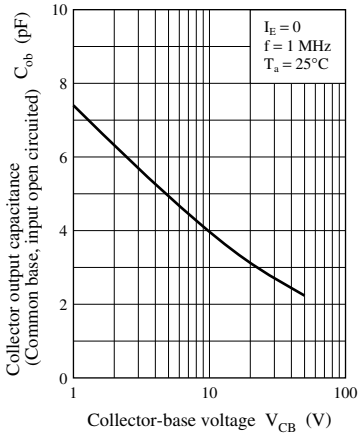
h_{FE} — I_C



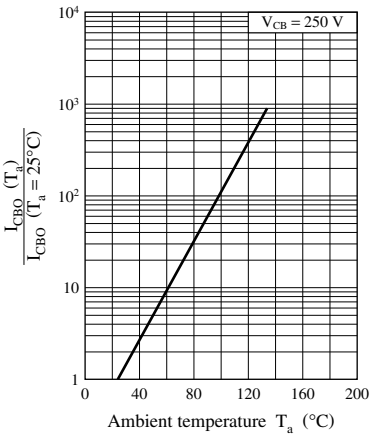
f_T — I_E



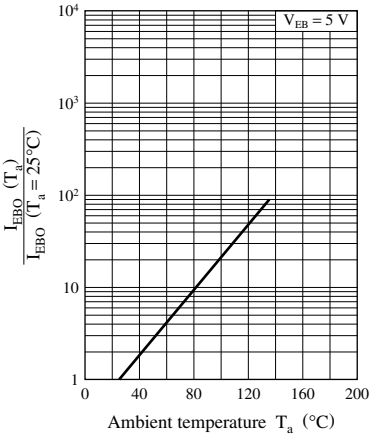
C_{ob} — V_{CB}



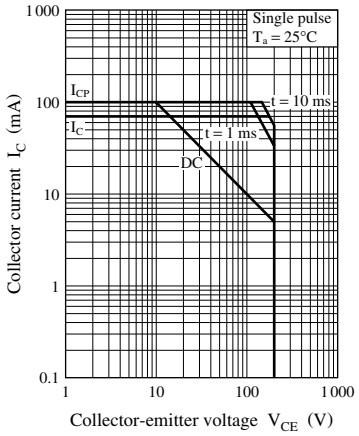
I_{CBO} — T_a



I_{EBO} — T_a



Safe operation area



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