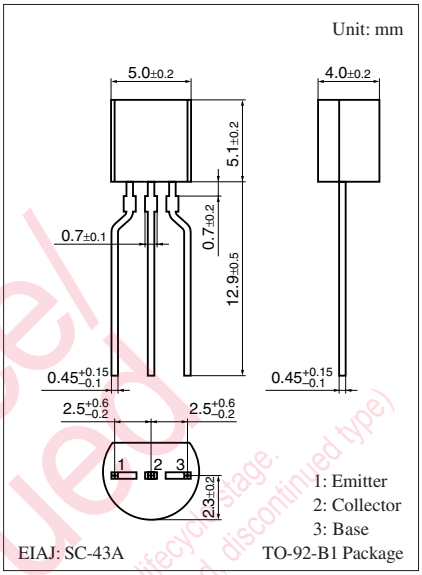
2SC1473, 2SC1473A

Silicon NPN triple diffusion planar type

For general amplification
2SC1473 complementary to 2SA1018
2SC1473A complementary to 2SA1767



■ 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)	2SC1473	V_{CBO}	250	V
	2SC1473A		300	
Collector-emitter voltage (Base open)	2SC1473	V_{CEO}	200	V
	2SC1473A		300	
Emitter-base voltage (Collector open)		V_{EBO}	7	V
Collector current		I_C	70	mA
Peak collector current		I_{CP}	100	mA
Collector power dissipation		P_C	750	mW
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

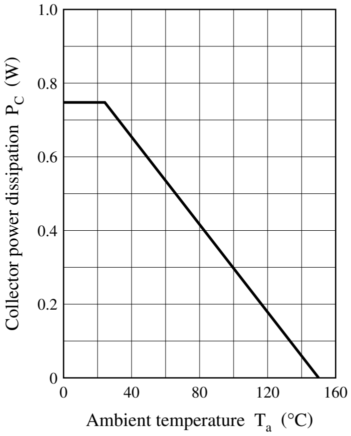
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	2SA1473	V_{CEO}	I_C = 100 µA, I_B = 0	200			V
	2SA1473A			300			
Emitter-base voltage (Collector open)		V_{EBO}	I_E = 1 µA, I_C = 0	7			V
Collector-emitter cutoff current (Base open)	2SA1473	I_{CEO}	V_{CE} = 120 V, T_a = 60°C, I_B = 0			1	µA
	2SA1473A		V_{CE} = 120 V, I_B = 0			1	
Forward current transfer ratio *		h_{FE}	V_{CE} = 10 V, I_C = 5 mA	60		220	—
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)		C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz			10	pF

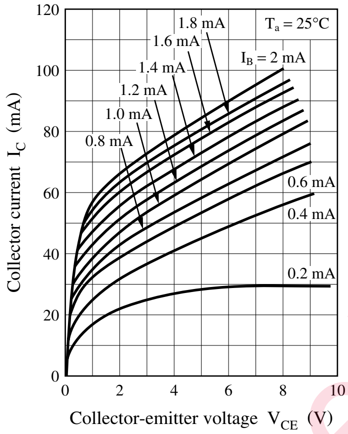
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

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

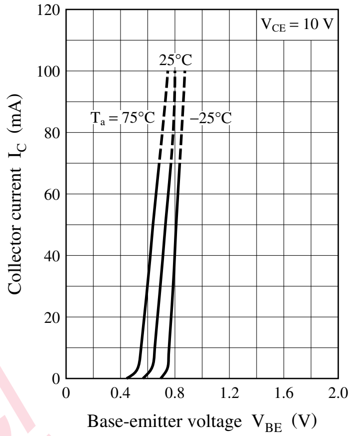
P_C — T_a



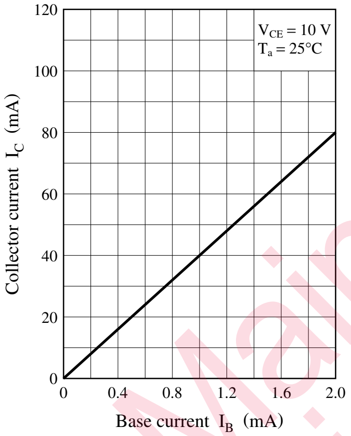
I_C — V_{CE}



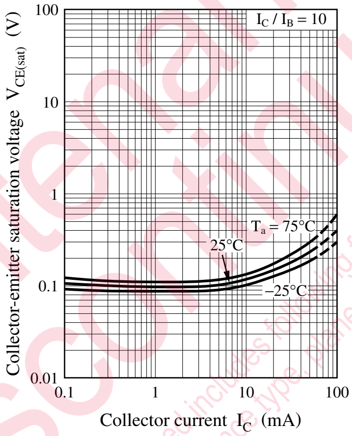
I_C — V_{BE}



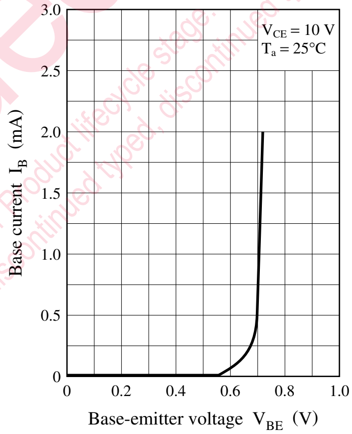
I_C — I_B



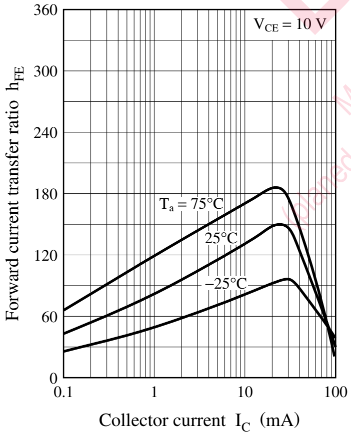
$V_{CE(sat)}$ — I_C



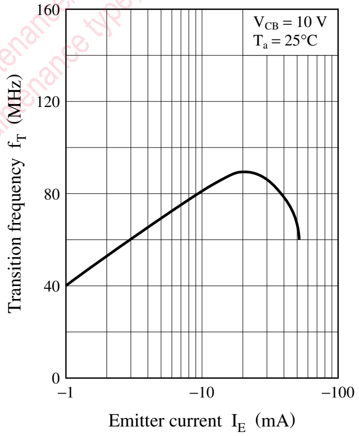
I_B — V_{BE}



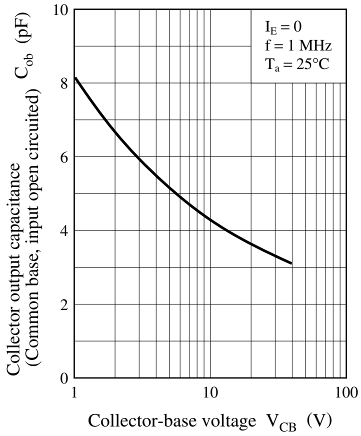
h_{FE} — I_C



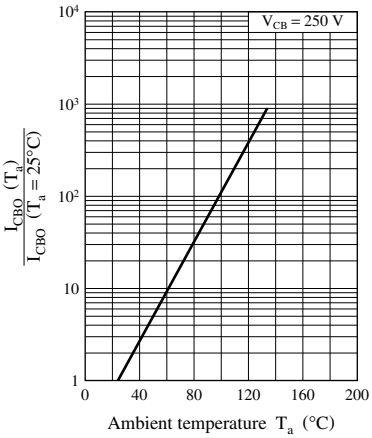
f_T — I_E



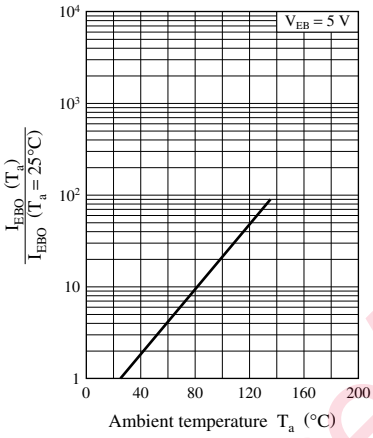
C_{ob} — V_{CB}



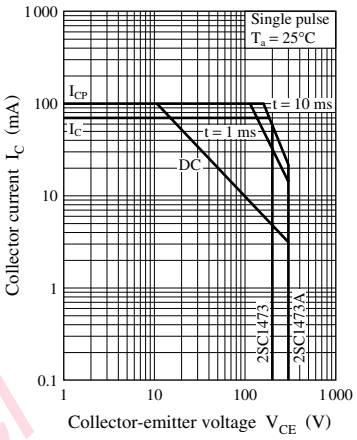
I_{CBO} — T_a



I_{EBO} — T_a



Safe operation area



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