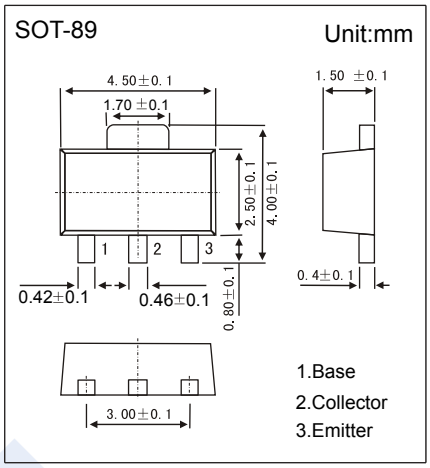
NPN Transistors

2SC4543



■ Features

- Collector Current Capability I_C=0.15A
- Collector Emitter Voltage V_{CEO}=50V

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	110	V
Collector - Emitter voltage R_{EB} = 1.2KΩ	V_{CER}	100	
Collector - Emitter Voltage	V_{CEO}	50	
Emitter - Base Voltage	V_{EBO}	3.5	
Collector Current - Continuous	I_C	0.15	A
Collector Current - Pulse	I_{CP}	0.3	
Collector Power Dissipation (Note.1)	P_C	1	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

Note.1 : Mounted on ceramic substrate of 250mm^{2}X0.8mm

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA, I_E= 0	110			V
Collector- emitter breakdown voltage	V_{CER}	I_C= 500 uA, R_{BE} = 470Ω	100			
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA, I_B =0	50			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	3.5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 45 V , I_E= 0			0.1	uA
Collector-emitter cut-off current	I_{CEO}	V_{CE} = 35V, I_B = 0			10	
Emitter cut-off current	I_{EBO}	V_{EB}= 3V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=150mA, I_B=15mA			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=150mA, I_B=15mA			1.2	
DC current gain	h_{FE}	V_{CE}= 5V, I_C= 100mA	20			
Collector output capacitance	C_{ob}	V_{CB}= 30V,I_E=0,f=1MHz		3		pF
Transition frequency	f_T	V_{CE}= 10V, I_E=-10mA,f=200MHz		300		MHz
		V_{CE}= 10V, I_E=-110mA,f=200MHz		350		

■ Marking

Marking	1F

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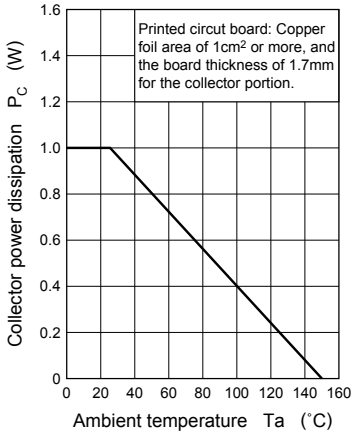
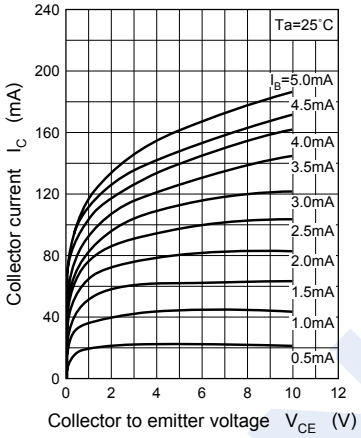
■ Typical Characterisitics

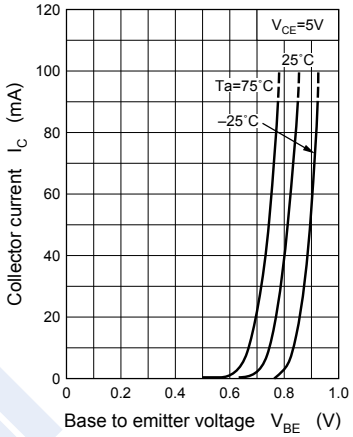
P_C — Ta



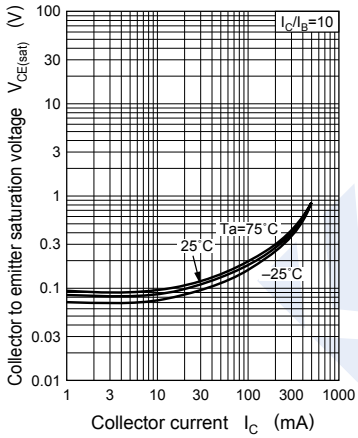
I_C — V_{CE}



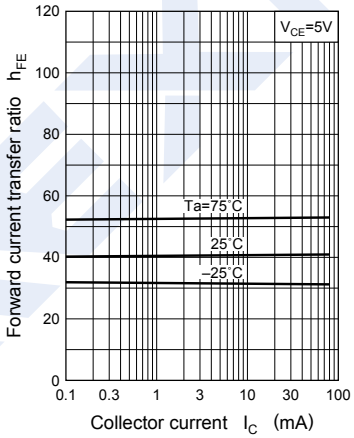
I_C — V_{BE}



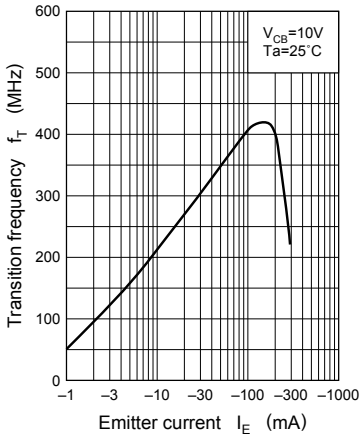
$V_{CE(sat)}$ — I_C



h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}