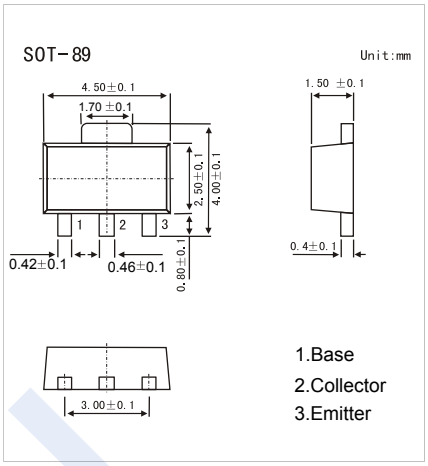
NPN Transistors

2SC2982



■ Features

- Low saturation voltage
- Small flat package
- P_C = 1.0 to 2.0 W (mounted on a ceramic substrate)
- Complementary to 2SA1314

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	30	V
Collector - Emitter Voltage	V_{CEO}	10	
Emitter - Base Voltage	V_{EBO}	6	
Collector Current - Continuous	I_C	2	A
Collector Current - Pulse (Note.1)	I_{cp}	4	
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

Note 1: Pulse test: Pulse width = 10 ms (max), duty cycle = 30% (max)

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 1 mA, I_E= 0	30			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 10 mA, I_B= 0	10			
Emitter - base breakdown voltage	V_{EBO}	I_E= 1mA, I_C= 0	6			
Collector- Base cut-off current	I_{CBO}	V_{CB}= 30 V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 6V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2A, I_B=50mA		0.2	0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=2A, I_B=50mA			1.2	
Base - emitter voltage	V_{BE}	V_{CE}= 1V, I_C= 2A		0.86	1.5	
DC current gain	h_{FE}	V_{CE}= 1V, I_C= 0.5A	140		600	
		V_{CE}= 1V, I_C= 2A	70	140		
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E=0,f=1MHz		27		pF
Transition frequency	f_T	V_{CE}= 1V, I_C= 0.5A		150		MHz

■ Classification of $h_{fe(1)}$

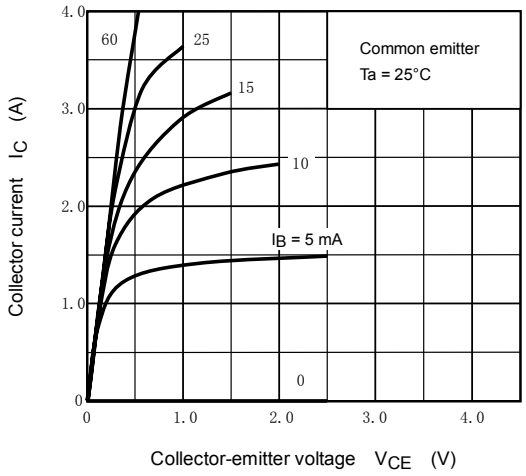
Type	2SC2982-A	2SC2982-B	2SC2982-C	2SC2982-D
Range	140-240	200-330	300-450	420-600
Marking	SA*	SB*	SC*	SD*

NPN Transistors

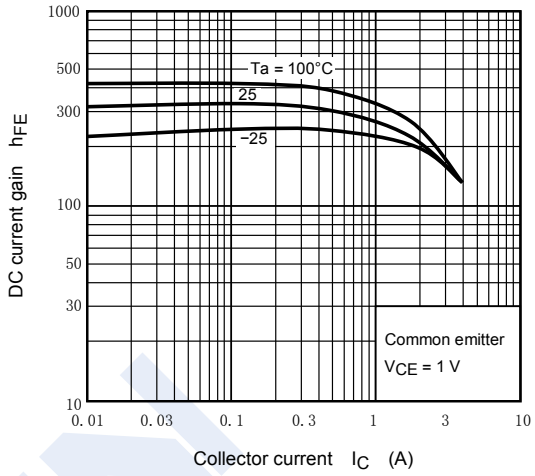
2SC2982

■ Typical Characterisitics

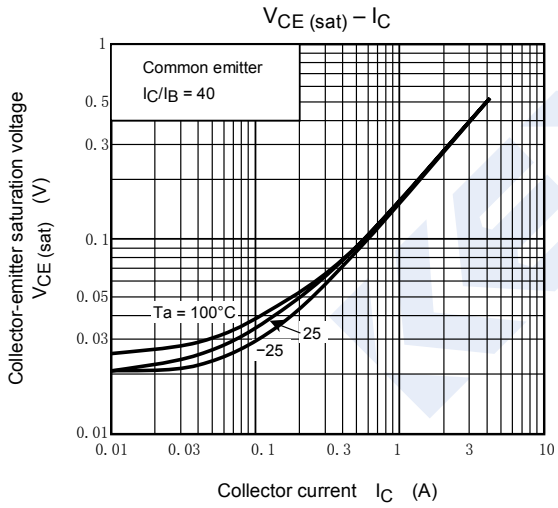
$I_C - V_{CE}$



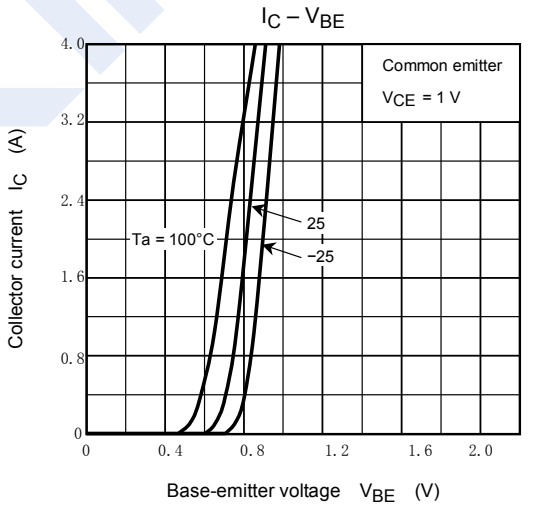
$h_{FE} - I_C$



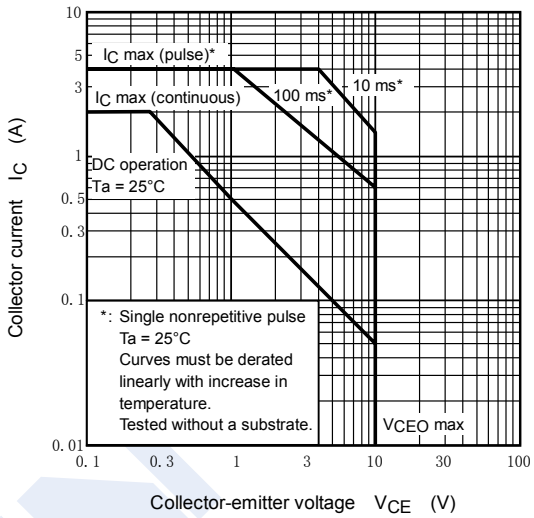
$V_{CE\ (sat)} - I_C$



$I_C - V_{BE}$



Safe Operating Area



$P_C - Ta$

