

NPN Transistors

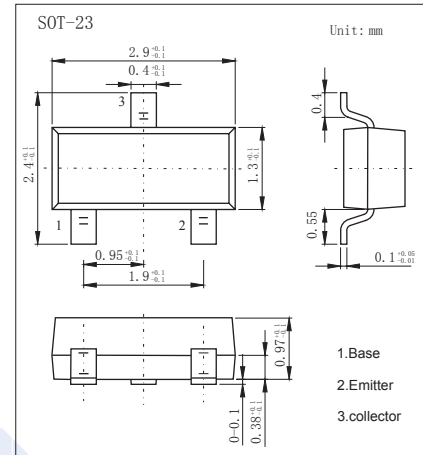
2SC4983

■ Features

- Collector Current Capability $I_C=1A$
- Collector Emitter Voltage $V_{CE0}=15V$
- Complement to 2SA1881

■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	15	V
Collector - Emitter Voltage	V_{CEO}	15	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	1	A
Collector Current - Pulse	I_{CP}	3	
Base Current	I_B	200	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	



■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 100 \mu A, I_E = 0$	15			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 mA, I_B = 0$	15			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 12 V, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4 V, I_C = 0$			0.1	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 5 mA, I_B = 0.5 mA$			25	mV
		$I_C = 500 mA, I_B = 25 mA$			240	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 mA, I_B = 25 mA$			1.2	V
DC current gain	h_{FE}	$V_{CE} = 2 V, I_C = 50 mA$	135		600	
		$V_{CE} = 2 V, I_C = 800 mA$	80			
Collector output capacitance	C_{ob}	$V_{CB} = 10 V, f = 1 MHz$		10		pF
Transition frequency	f_T	$V_{CE} = 2 V, I_C = 50 mA$		200		MHz

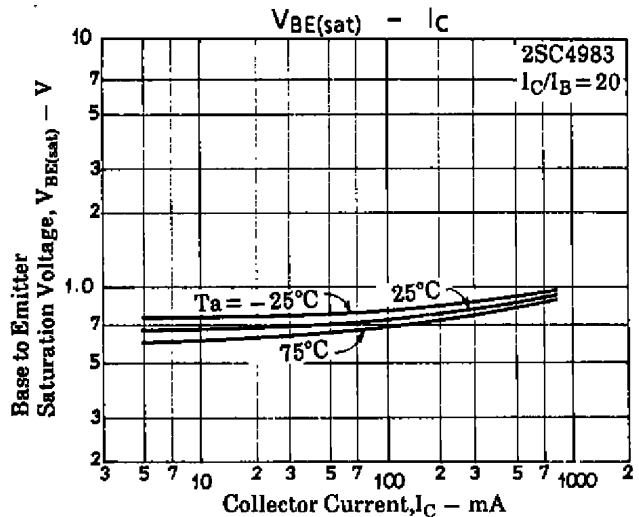
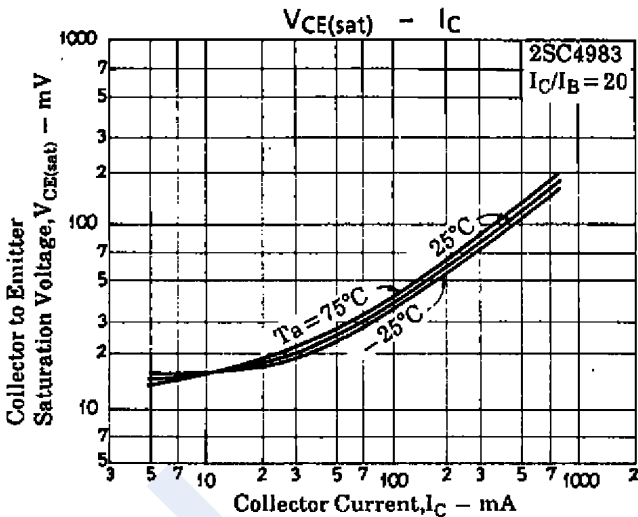
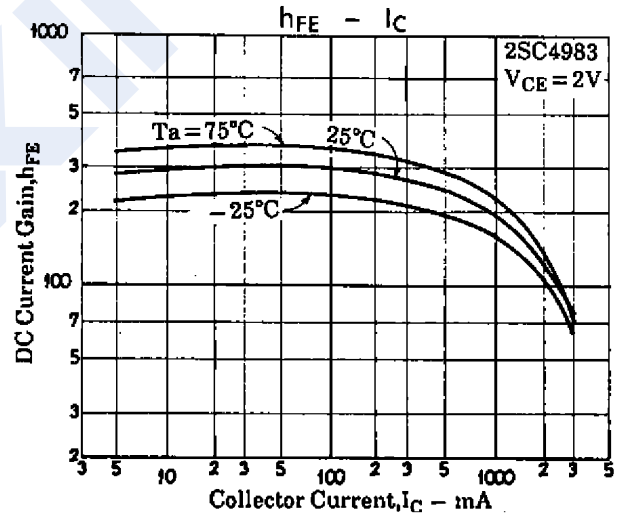
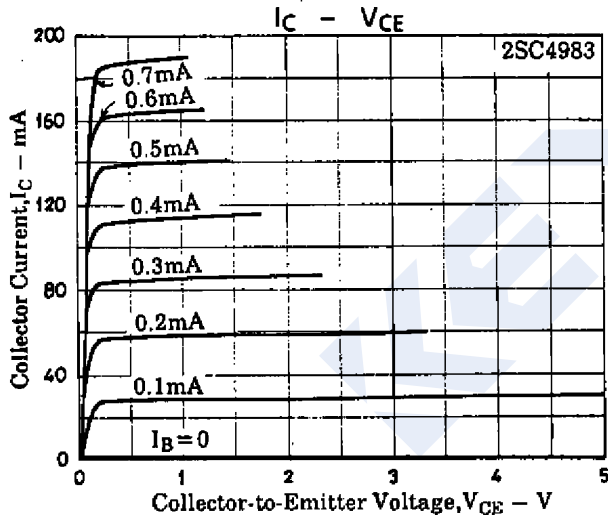
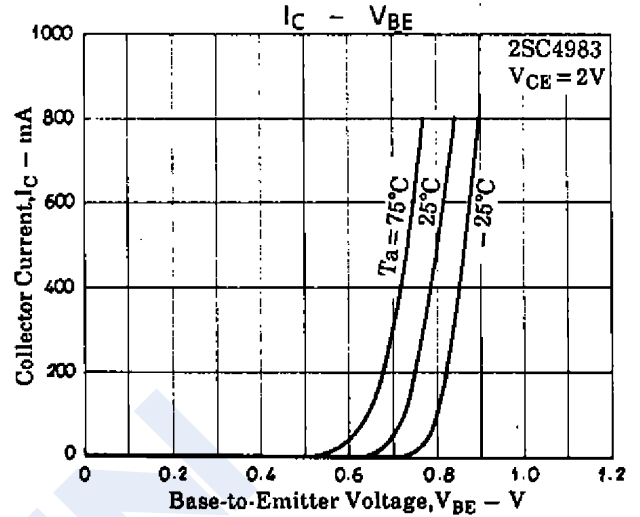
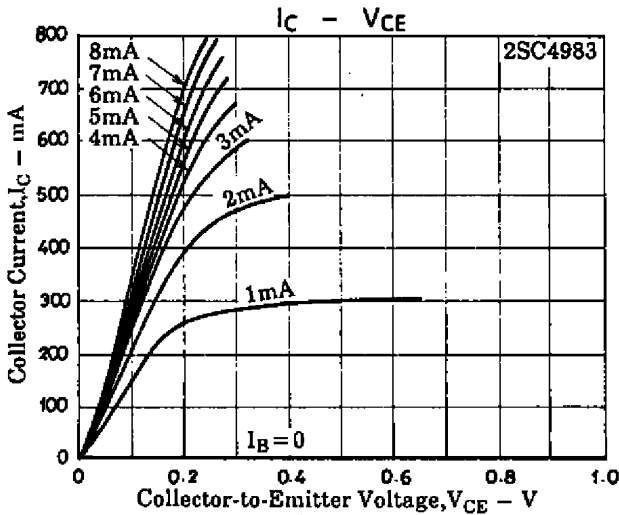
■ Classification of h_{FE}

Type	2SC4983-KN5	2SC4983-KN6	2SC4983-KN7
Range	135-270	200-400	300-600
Marking	KN5	KN6	KN7

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■ Typical Characteristics



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