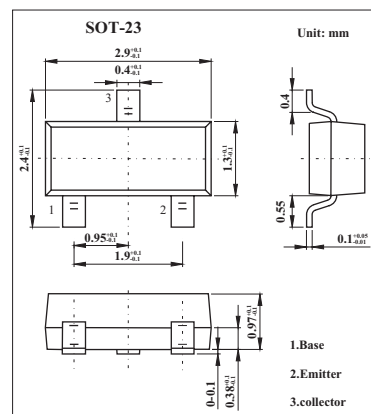


NPN Epitaxial Planar Silicon Transistors

2SC4983

■ Features

- AF power amplifier, medium-speed switching, small-sized motor drivers and LED drivers.
- Large current capacity.
- Low collector-to-emitter saturation voltage.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	15	V
Collector-emitter voltage	V_{CE0}	15	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_C	1	A
Collector current (pulse)	I_{CP}	3	A
Base current	I_B	200	mA
Collector dissipation	P_C	250	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 12\text{V}, I_E = 0$			100	nA
Emitter cutoff current	I_{EBO}	$V_{EB} = 4\text{V}, I_C = 0$			100	nA
DC current Gain	h_{FE}	$V_{CE} = 2\text{V}, I_C = 50\text{mA}$	135		600	
Gain bandwidth product	f_T	$V_{CE} = 2\text{V}, I_C = 50\text{mA}$		200		MHz
Common base output capacitance	C_{ob}	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		10		pF
Collector-to-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 5\text{mA}, I_B = 0.5\text{mA}$		10	25	mV
		$I_C = 500\text{mA}, I_B = 25\text{mA}$		120	240	mV
Base-to-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500\text{mA}, I_B = 25\text{mA}$		0.9	1.2	V
Collector-to-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	15			V
Collector-to-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	15			V
Emitter-to-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	5			V

■ h_{FE} Classification

Marking	KN		
Rank	5	6	7
h_{FE}	135~270	200~400	300~600