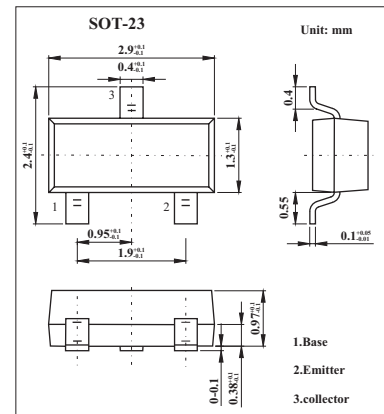


High-voltage Amplifier Transistor

2SC3906K

■ Features

- High breakdown voltage.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	120	V
Collector-emitter voltage	V_{CE0}	120	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_c	50	mA
Collector power dissipation	P_c	0.2	W
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-base breakdown voltage	BV_{CB0}	$I_c=50\mu\text{A}$	120			V
Collector-emitter breakdown voltage	BV_{CE0}	$I_c=1\text{mA}$	120			V
Emitter-base breakdown voltage	BV_{EB0}	$I_E=50\mu\text{A}$	5			V
Collector cutoff current	I_{cBO}	$V_{CB}=100\text{V}$			0.5	μA
Emitter cutoff current	I_{EBO}	$V_{EB}=4\text{V}$			0.5	μA
DC current transfer ratio	h_{FE}	$V_{CE}=6\text{V}, I_c=2\text{mA}$	180		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c=10\text{mA}, I_b=1\text{mA}$			0.5	V
Output capacitance	f_T	$V_{CE}=-12\text{V}, I_E=2\text{mA}, f=100\text{MHz}$		140		MHz
Transition frequency	C_{ob}	$V_{CB}=-12\text{V}, I_E=0\text{A}, f=1\text{MHz}$		2.5		pF

■ h_{FE} Classification

Marking	TR	TS
Rank	R	S
h_{FE}	180~390	270~560