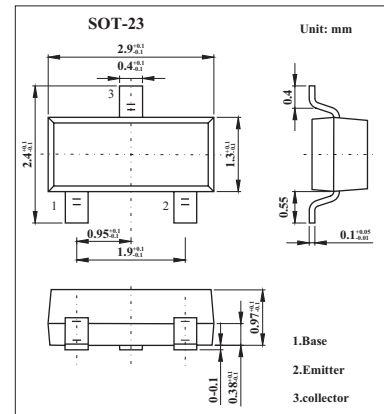


Silicon NPN Epitaxial

2SC2776

■ Features

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	30	V
Collector-emitter voltage	V_{CE0}	20	V
Emitter-base voltage	V_{EB0}	4	V
Collector current	I_c	30	mA
Collector power dissipation	P_c	100	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-base breakdown voltage	$V_{(BR)CBO}$	$I_c = 10\mu\text{A}$, $I_E = 0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_c = 1\text{mA}$, $R_{BE} = \infty$	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}$, $I_c = 0$	4			V
Collector cutoff current	I_{CBO}	$V_{CB} = 10\text{V}$, $I_c = 0$			0.5	μA
DC current transfer ratio	h_{FE}	$V_{CE} = 6\text{V}$, $I_c = 1\text{mA}$	35		200	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_c = 10\text{mA}$, $I_B = 1\text{mA}$		0.8	1.2	V
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		1.1		pF
Gain bandwidth product	f_T	$V_{CE} = 6\text{V}$, $I_c = 1\text{mA}$		320		MHz
Noise figure	NF	$V_{CE} = 6\text{V}$, $I_c = 1\text{mA}$, $f = 100\text{MHz}$, $R_g = 50\Omega$		5.5		dB
Power gain	PG	$V_{CE} = 6\text{V}$, $I_c = 1\text{mA}$, $f = 100\text{MHz}$, $R_g = 100\Omega$, $R_L = 550\Omega$		17		dB

■ hFE Classification

Marking	VA	VB	VC
Rank	A	B	C
hFE	35~70	60~120	100~200