Silicon NPN Epitaxial

2SC2776

SOT-23 Unit: mm

■ Features
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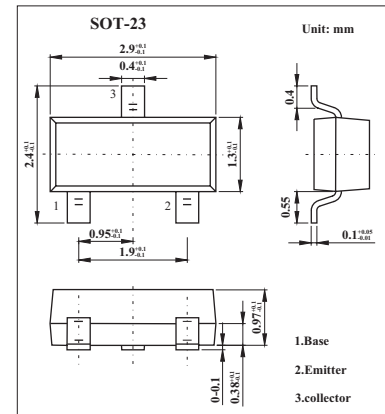
■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	4	V
Collector current	I_C	30	mA
Collector power dissipation	P_C	100	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

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

■ hFE Classification

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