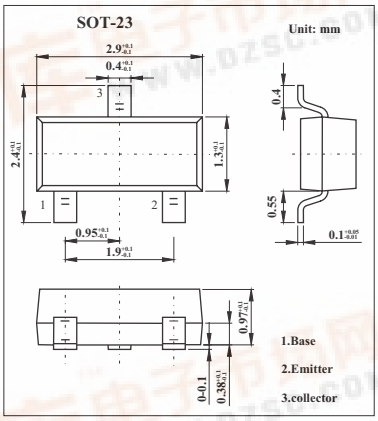
PNP Epitaxial Planar Silicon Transistor

2SA1682



Features

- High breakdown voltage.
- Small reverse transfer capacitance and excellent high frequency chacateristic (Cre : 1.5pF typ).

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-300	V
Collector-emitter voltage	V_{CEO}	-300	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-50	mA
Collector current (pulse)	I_{CP}	-100	mA
Collector dissipation	P_C	250	mW
Jumction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

2SA1682

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = -200V , I_E = 0			-0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = -4V , I_C = 0			-0.1	μA
DC current gain	$h_{FE\ 1}$	V_{CE} = -6V , I_C = -0.1 mA	100		320	
	$h_{FE\ 2}$	V_{CE} = -6V , I_C = -1 mA	100			
Gain bandwidth product	f_T	V_{CE} = -30V , I_C = -10 mA		70		MHz
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -10mA , I_B = -3mA			-1.0	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = -10mA , I_B = -3mA			-1.0	V
Collector-to-base breakdown voltage	$V_{(BR)CBO}$	I_C = -10μA , I_E = 0	-300			V
Collector-to-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = -1mA , R_{BE} = ∞	-300			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = -10μA , I_C = 0	-5			V
Output capacitance	C_{ob}	V_{CB} = -30V , f = 1MHz		2.4		pF
Reverse transfer capacitance	C_{re}	V_{CB} = -30V , f = 1MHz		1.5		pF
DC current gain ratio	$h_{FE\ ratio}$	h_{FE}1/ h_{FE}2		1.0		

■ h_{FE} Classification

Marking	CS	
Rank	4	5
hFE	100～200	160～320