

Power Transistor

2SB1275

■ Features

- High breakdown voltage.($V_{CE0} = -160V$)
- Low collector output capacitance.
Typ. 30pF at $V_{CB} = 10V$
- High transition frequency.($f_T = 50MHz$)

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-160	V
Collector-emitter voltage	V_{CEO}	-160	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_c	-1.5	A(DC)
		-3	A(Pulse)
Collector power dissipation	P_c	1	W($T_c=25^\circ C$)
		10	
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	$I_c = -50\mu A$	-160			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_c = -1mA$	-160			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = -50\mu A$	-5			V
Collector cutoff current	I_{CBO}	$V_{CB} = -120V$			-1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -4V$			-1	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c/I_B = -1A/-0.1A$			-2	V
DC current transfer ratio	h_{FE}	$V_{CE} = -5V, I_c = -0.1A$	82		180	
Transition frequency	f_T	$V_{CE} = -5V, I_E = 0.1A, f = 30MHz$		50		MHz
Output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0A, f = 1MHz$		30		pF

■ hFE Classification

TYPE	P
hFE	82 to 180