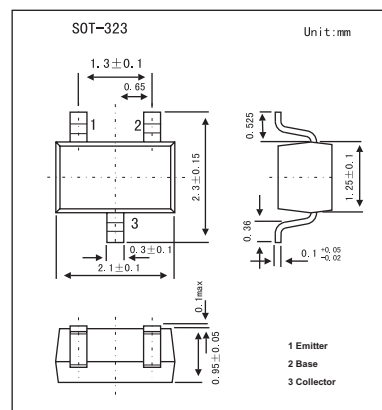


Medium Power Transistor

2SA1577

■ Features

- Large $I_{C,ICMAX.} = -500\text{mA}$
- Low $V_{CE(sat)}$. Ideal for low-voltage operation.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-40	V
Collector-emitter voltage	V_{CEO}	-32	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-0.5	A
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_{CBO}	$I_C = -100\mu\text{A}$	-40			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = -1\text{mA}$	-32			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = -100\mu\text{A}$	-5			V
Collector cutoff current	I_{CBO}	$V_{CB} = -20\text{V}$			-1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -4\text{V}$			-1	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$V_{CE} = -3\text{V}, I_C = -100\text{mA}$			-0.6	V
DC current transfer ratio	h_{FE}	$I_C/I_B = -300\text{mA}/-30\text{mA}$	82		390	
Transition frequency	f_r	$V_{CE} = -5\text{V}, I_E = 20\text{mA}, f = 100\text{MHz}$		200		MHz
Output capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0\text{A}, f = 1\text{MHz}$		7		pF

■ h_{FE} Classification

Marking	HP	HQ	HR
h_{FE}	82~180	120~270	180~390