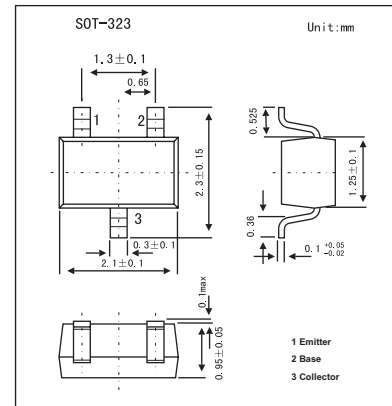


Medium Power Amplifier

2SA1979UF

■ Features

- Large collector current.
- Suitable for low-voltage operation because of its low saturation voltage.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-40	V
Collector-emitter voltage	V_{CE0}	-32	V
Emitter-base voltage	V_{EB0}	-5	V
Collector current	I_C	-500	mA
Collector dissipation	P_C	200	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	BV_{CB0}	$I_C = -100\mu\text{A}$, $I_E = 0$	-40			V
Collector-emitter breakdown voltage	BV_{CE0}	$I_C = -1\text{mA}$, $I_B = 0$	-32			V
Emitter-base breakdown voltage	BV_{EB0}	$I_E = -10\mu\text{A}$, $I_C = 0$	-5			V
Collector cutoff current	I_{CB0}	$V_{CB} = -40\text{V}$, $I_E = 0$			-0.1	μA
Emitter cutoff current	I_{EB0}	$V_{EB} = -5\text{V}$, $I_C = 0$			-0.1	μA
DC current transfer ratio	h_{FE}	$V_{CE} = -1\text{V}$, $I_C = -100\text{mA}$	70		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}$, $I_B = -10\text{mA}$			-0.25	V
Transition frequency	f_T	$V_{CE} = -6\text{V}$, $I_C = -20\text{mA}$		200		MHz
Output capacitance	C_{ob}	$V_{CB} = -6\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		7.5		pF

■ h_{FE} Classification

Marking	A	
Rank	O	Y
h_{FE}	70~140	120~240