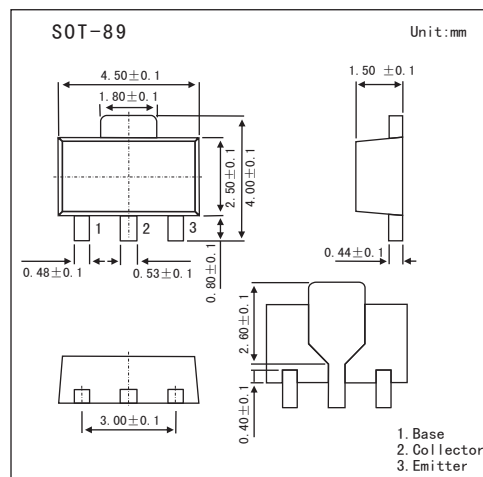


Silicon NPN Epitaxial 2SD1366A

■ Features

- Low frequency power amplifier



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	30	V
Collector-emitter voltage	V_{CE0}	25	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_C	1	A
Total power dissipation	P_C^*	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* Value on the alumina ceramic board (12.5 × 20 × 0.7 mm)

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test conditons	Min	Typ	Max	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\ \mu\text{A}, I_E = 0$	30			V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\ \text{mA}, I_B = 0$	25			V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\ \mu\text{A}, I_C = 0$	5			V
Collector cutoff current	I_{CBO}	$V_{CB} = 250\text{V}, I_B = 0$			0.1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 4\ \text{V}, I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 2\text{V}, I_C = 500\text{mA}$	85		240	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 0.8\ \text{A}, I_B = 80\text{mA}$			0.3	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 0.8\ \text{A}, I_B = 80\text{mA}$			1	V
Transition frequency	f_T	$V_{CE} = 2\text{V}, I_C = 500\text{mA}$		240		MHz
Output Capacitance	C_{ob}	$V_{CB} = 10\ \text{V}, I_E = 0, f = 1.0\ \text{MHz}$		22		pF

■ h_{FE} Classification

Marking	AC	AD
h_{FE}	82~180	120~240