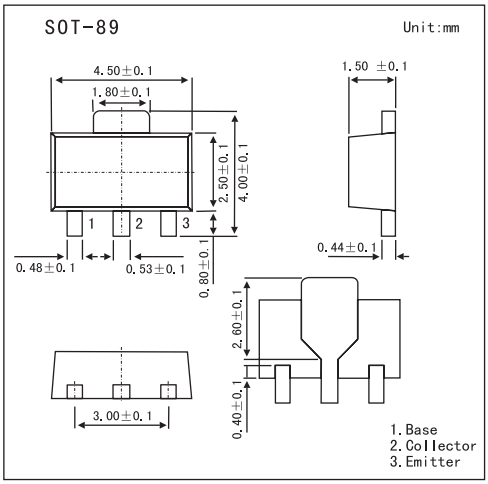
Silicon NPN Epitaxial Planar Type

2SD1280



■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$.
- Satisfactory operation performances at high efficiency with the lowvoltage power supply.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	20	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	1	A
Peak collector current	I_{CP}	2	A
Collector power dissipation	P_C	1	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-emitter voltage	V_{CEO}	I_C = 1 mA, I_B = 0	20			V
Emitter-base voltage	V_{EBO}	I_E = 10 μA, I_C = 0	5			V
Collector-base cutoff current	I_{CBO}	V_{CB} = 10 V, I_B = 0			1	μA
Forward current transfer ratio	h_{FE}	V_{CE} = 2 V, I_C = 0.5 A	90		280	
		V_{CE} = 2 V, I_C = 1.5 A	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 1 A, I_B = 50 mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = 500 mA, I_B = 50 mA			1.2	V
Transition frequency	f_T	V_{CB} = 6 V, I_E = -50 mA, f = 200 MHz		150		MHz
Collector output capacitance	C_{ob}	V_{CB} = 6 V, I_E = 0, f = 1 MHz		18		pF

■ h_{FE} Classification

Marking	R		
Rank	Q	R	S
h_{FE}	90～155	130～210	180～280