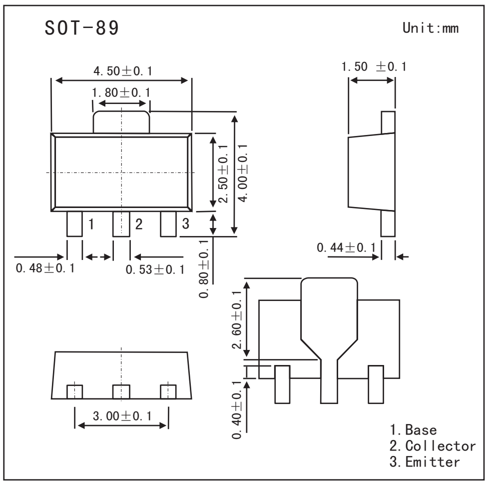
NPN Silicon Epitaxial Transistor
2SC2780



Features

High Collector-emitter voltage.

Complements to PNP type 2SA1173

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	140	V
Collector-emitter voltage	V_{CEO}	140	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	50	mA
	I_{CP} *1	2.5	A
Collector power dissipation	P_C	0.5	W
	P_C *2	2	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

*1. Pw 10ms,duty cycle 50%

*2. When mounted on ceramic substrate of 16cm^2 × 0.7mm

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test conditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB}=140V			0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB}=5V			0.1	μA
DC current gain	h_{FE}	V_{CE}=10V,I_C=1mA	50	180		
		V_{CE}=10V,I_C=10mA	90		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=20mA,I_B=2mA		0.07	0.6	V
Base saturation voltage	$V_{BE(sat)}$	I_C=20mA,I_B=2mA		0.75	1.0	V
Transition frequency	f_T	V_{CE}=10V, I_E= -10mA		120		MHz
Output capacitance	C_{ob}	V_{CB}=10V, I_E=0A, f=1MHz		2.3		pF

h_{FE} Classification

Marking	NM	NL	NK
h_{FE}	82 180	120 270	180 390