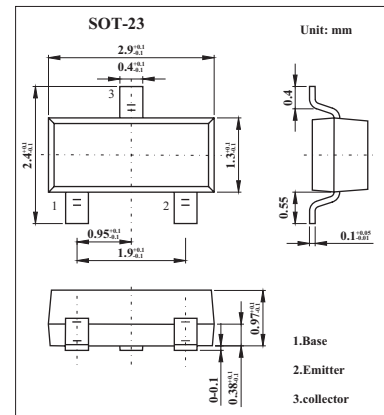


## NPN Epitaxial Planar Silicon Transistors

## 2SD1935

## ■ Features

- Large current capacity.
- Low collector to emitter saturation voltage.
- Very small-sized package permitting sets to be made smaller and slimer.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	15	V
Collector-emitter voltage	$V_{CE0}$	15	V
Emitter-base voltage	$V_{EB0}$	5	V
Collector current	$I_c$	0.8	A
Collector current (pulse)	$I_{CP}$	3	A
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	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 12\text{V}$ , $I_E = 0$			100	nA
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 4\text{V}$ , $I_C = 0$			100	nA
DC current Gain	$h_{FE}$	$V_{CE} = 2\text{V}$ , $I_C = 50\text{mA}$	135		900	
Gain bandwidth product	$f_T$	$V_{CE} = 2\text{V}$ , $I_C = 50\text{mA}$		200		MHz
Output capacitance	$C_{ob}$	$V_{CB} = 10\text{V}$ , $f = 1\text{MHz}$		10		pF
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 5\text{mA}$ , $I_B = 0.5\text{mA}$		10	25	mV
		$I_C = 400\text{mA}$ , $I_B = 20\text{mA}$		100	200	mV
Base-to-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 400\text{mA}$ , $I_B = 20\text{mA}$		0.9	1.2	V
Collector-to-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}$ , $I_E = 0$	15			V
Collector-to-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}$ , $R_{BE} = \infty$	15			V
Emitter-to-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}$ , $I_C = 0$	5			V

■  $h_{FE}$  Classification

Marking	CT			
	5	6	7	8
$h_{FE}$	135~270	200~400	300~600	450~900