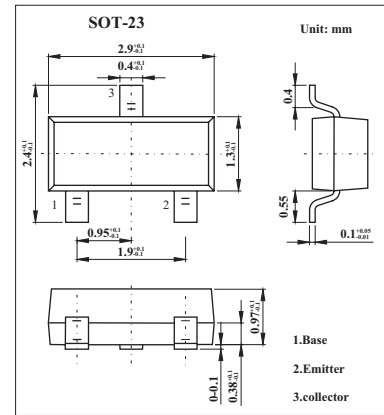


## Silicon NPN Epitaxial Planar Type

## 2SD602

## ■ Features

- Low collector to emitter saturation voltage  $V_{CE(sat)}$ .
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

■ 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	$I_C$	500	mA
Peak collector current	$I_{CP}$	1	A
Collector power 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 voltage	$V_{CB0}$	$I_C = 10 \mu\text{A}, I_E = 0$	30			V
Collector-emitter voltage	$V_{CE0}$	$I_C = 10 \text{mA}, I_B = 0$	25			V
Emitter-base voltage	$V_{EB0}$	$I_E = 10 \mu\text{A}, I_C = 0$	5			V
Collector-base cutoff current	$I_{CBO}$	$V_{CB} = 20 \text{V}, I_E = 0$			0.1	$\mu\text{A}$
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 10 \text{V}, I_C = 150 \text{mA}$	85	160	340	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 300 \text{mA}, I_B = 30 \text{mA}$		0.35	0.6	V
Transition frequency	$f_T$	$V_{CB} = 10 \text{V}, I_E = -50 \text{mA}, f = 200 \text{MHz}$		200		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10 \text{V}, I_E = 0, f = 1.0 \text{MHz}$		6	15	pF

■  $h_{FE}$  Classification

Marking	WQ	WR	WS
$h_{FE}$	85~170	120~240	170~340