

## SMD Type

## Transistors

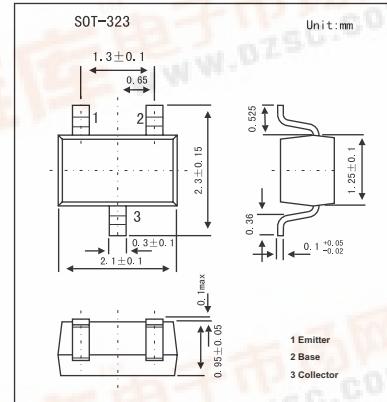
# Silicon NPN Epitaxial

## 2SC4667



### ■ Features

- High transition frequency:  $f_T = 400 \text{ MHz}$  (typ.)
- Low saturation voltage:  $V_{CE(\text{sat})} = 0.3 \text{ V}$  (max)
- High speed switching time:  $t_{stg} = 15 \text{ ns}$  (typ.)



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	40	V
Collector-emitter voltage	$V_{CEO}$	15	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	200	mA
Base current	$I_B$	40	mA
Collector power dissipation	$P_C$	100	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = 40 \text{ V}$ , $I_E = 0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5 \text{ V}$ , $I_C = 0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = 1 \text{ V}$ , $I_C = 10 \text{ mA}$	40		240	
Collector-emitter saturation voltage	$V_{CE(\text{sat})}$	$I_C = 20 \text{ mA}$ , $I_B = 1 \text{ mA}$			0.3	V
Base-emitter saturation voltage	$V_{BE(\text{sat})}$	$I_C = 20 \text{ mA}$ , $I_B = 1 \text{ mA}$			1.0	V
Transition frequency	$f_T$	$V_{CE} = 10 \text{ V}$ , $I_C = 10 \text{ mA}$	200	400		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10 \text{ V}$ , $I_E = 0$ , $f = 1 \text{ MHz}$		4	6	pF
Turn-on time	$t_{on}$	 DUTY CYCLE $\leq 2\%$ $V_{BB} = -3 \text{ V}$ $V_{CC} = 12 \text{ V}$		70		ns
Storage time	$t_{stg}$				15	ns
Fall time	$t_f$				30	ns

### ■ hFE Classification

Marking	CH		
Rank	R	O	Y
hFE	40~80	70~140	120~240