

# 2SA2046

## Silicon PNP epitaxial planer type

For DC-DC converter

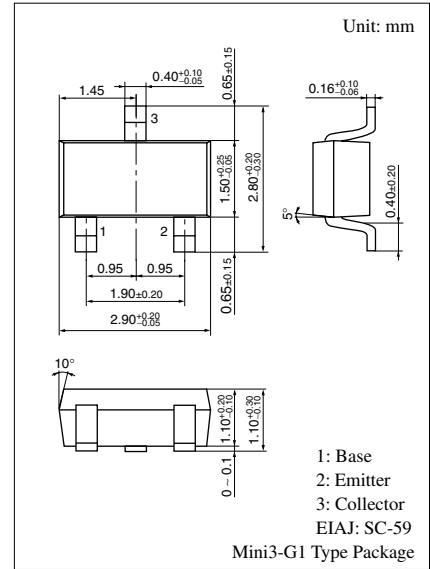
### ■ Features

- Low collector to emitter saturation voltage  $V_{CE(sat)}$
- Mini3-G1 type package, allowing downsizing and thinning of the equipment and automatic insertion through the tape packing

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	-30	V
Collector to emitter voltage	$V_{CEO}$	-20	V
Emitter to base voltage	$V_{EBO}$	-5	V
Peak collector current	$I_{CP}$	-5	A
Collector current	$I_C$	-1.5	A
Collector power dissipation *	$P_C$	400	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

Note) \*: Measure on the ceramic substrate at  $15 \times 15 \times 0.6 \text{ mm}^3$



Marking Symbol: 3Z

### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector to base voltage	$V_{CBO}$	$I_C = -10 \mu\text{A}, I_E = 0$	-30			V
Collector to emitter voltage	$V_{CEO}$	$I_C = -1 \text{ mA}, I_B = 0$	-20			V
Emitter to base voltage	$V_{EBO}$	$I_E = -10 \mu\text{A}, I_C = 0$	-5			V
Forward current transfer ratio *	$h_{FE}$	$V_{CE} = -2 \text{ V}, I_C = -100 \text{ mA}$	160		560	
Collector to emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -500 \text{ mA}, I_B = -25 \text{ mA}$		-50	-150	mV
Collector output capacitance	$C_{ob}$	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		25	35	pF
Transition frequency	$f_T$	$V_{CB} = -10 \text{ V}, I_E = 20 \text{ mA}$ $f = 200 \text{ MHz}$		170		MHz

Note) \*: Pulse measurement