

# PU3117, PU4117, PU4417

Silicon NPN Triple-Diffused Planar Type

Power Amplifier, Switching

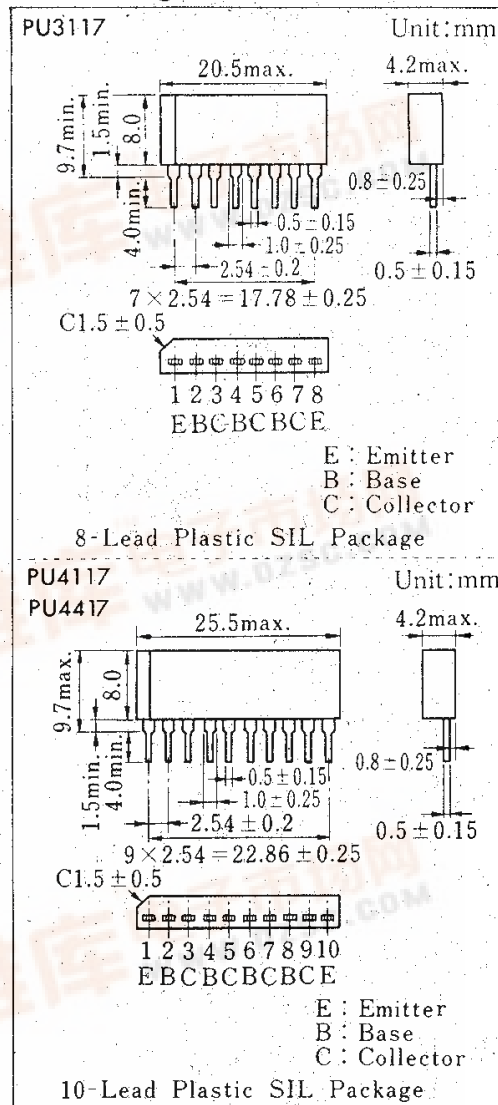
## Features

- High DC current gain ( $h_{FE}$ )
- Good linearity of DC current gain ( $h_{FE}$ )
- PU3117: 3 NPN elements
- PU4117: 4 NPN elements
- PU4417: 2 NPN elements  $\times$  2 (4 elements in total)

## Absolute Maximum Ratings ( $T_c=25^\circ\text{C}$ )

Item	Symbol	Value	Unit
Collector-base voltage	$V_{CBO}$	80	V
Collector-emitter voltage	$V_{CEO}$	60	V
Emitter-base voltage	$V_{EBO}$	6	V
Peak collector current	$I_{CP}$	6	A
Collector current	$I_C$	3	A
Base current	$I_B$	1	A
Power dissipation	$P_D$	15	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

## Package Dimensions



## Electrical Characteristics ( $T_c=25^\circ\text{C}$ )

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB}=80\text{V}, I_E=0$			100	$\mu\text{A}$
	$I_{CEO}$	$V_{CE}=40\text{V}, I_B=0$			100	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB}=6\text{V}, I_C=0$			100	$\mu\text{A}$
Collector-emitter voltage	$V_{CEO}$	$I_C=25\text{mA}, I_B=0$	60			V
DC current gain	$h_{FE}$	$V_{CE}=4\text{V}, I_C=0.5\text{A}$	500		2500	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2\text{A}, I_B=0.05\text{A}$			1	V
Transition frequency	$f_T$	$V_{CE}=12\text{V}, I_C=0.2\text{A}, f=10\text{MHz}$		50		MHz

## Inner Circuit

