

PU3216, PU4216, PU4516

Silicon NPN Epitaxial Planar Type

Power Amplifier

Complementary Pair with PU3116, PU4116, PU4416

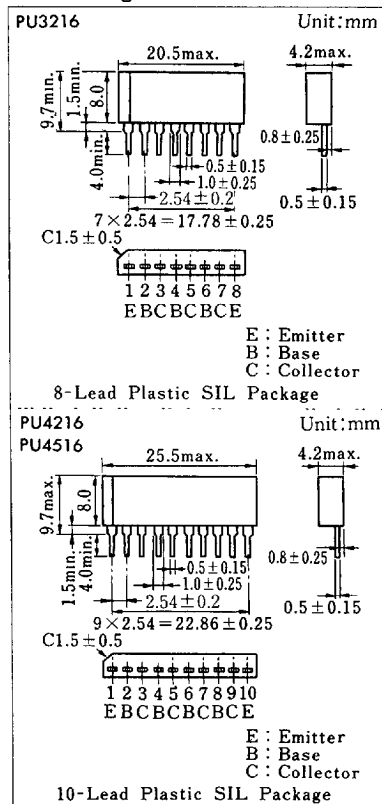
■ Features

- High collector-emitter voltage (V_{CE0})
- High DC current gain (h_{FE}) and good linearity
- PU3216: 3 NPN elements
- PU4216: 4 NPN elements
- PU4516: 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_{CB0}	-200	V
Collector-emitter voltage	V_{CE0}	-150	V
Emitter-base voltage	V_{EB0}	-6	V
Peak collector current	I_{CP}	-3	A
Collector current	I_C	-2	A
Power dissipation	P_D	15	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

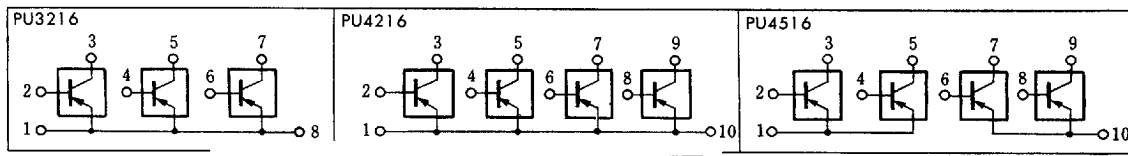
■ Package Dimensions



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

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CB0}	$V_{CB} = -200\text{V}, I_E = 0$			-50	μA
Emitter cutoff current	I_{EB0}	$V_{EB} = -4\text{V}, I_C = 0$			-50	μA
Collector-emitter voltage	V_{CB0}	$I_C = -500\mu\text{A}, I_E = 0$	-200			V
Collector-emitter voltage	V_{CE0}	$I_C = -5\text{mA}, I_E = 0$	-150			V
Emitter-base voltage	V_{EB0}	$I_E = -500\mu\text{A}, I_C = 0$	-6			V.
DC current gain	h_{FE1}	$V_{CE} = -10\text{V}, I_C = -150\text{mA}$	60		240	
	h_{FE2}	$V_{CE} = -10\text{V}, I_C = -400\text{mA}$	50			
Base-emitter voltage	V_{BE}	$V_{CE} = -10\text{V}, I_C = -400\text{mA}$			-1	V
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-1	V
Transition frequency	f_T	$V_{CE} = -10\text{V}, I_C = -0.5\text{A}, f = 10\text{MHz}$		40		MHz

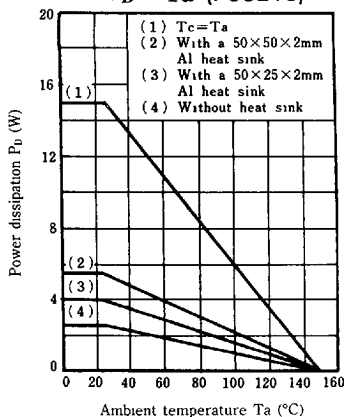
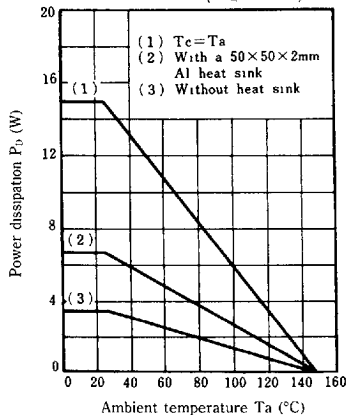
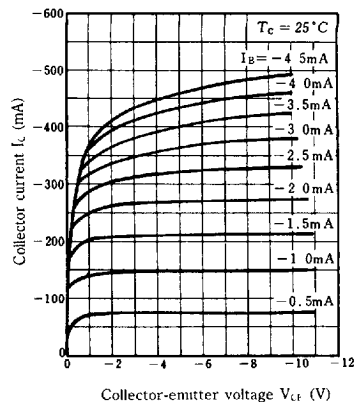
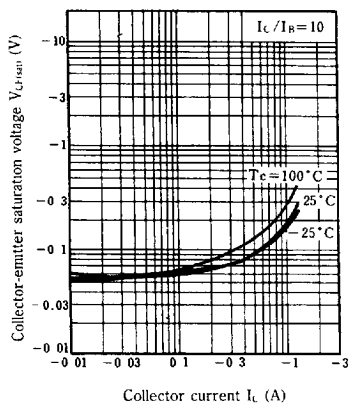
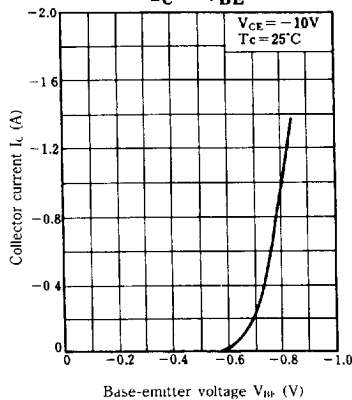
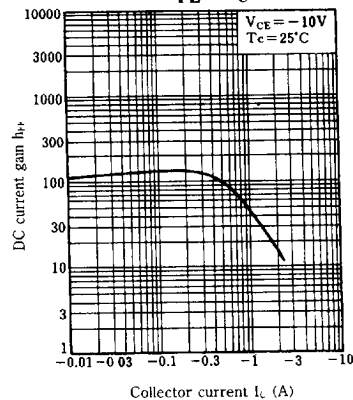
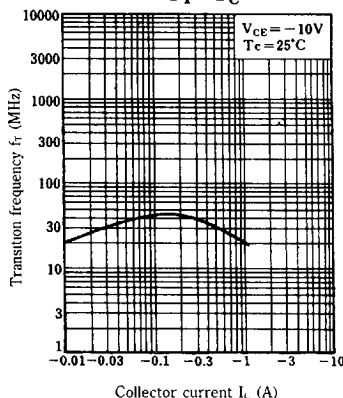
■ Inner Circuit



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Panasonic

$P_D - T_a$ (PU3216) $P_D - T_a$ (PU4216)
(PU4516) $I_C - V_{CE}$  $V_{CE(sat)} - I_C$  $I_C - V_{BE}$  $h_{FE} - I_C$  $f_T - I_C$ 

Area of safe operation (ASO)

