

PU4313

Silicon NPN/PNP Epitaxial Planar Type

Power Amplifier, Switching

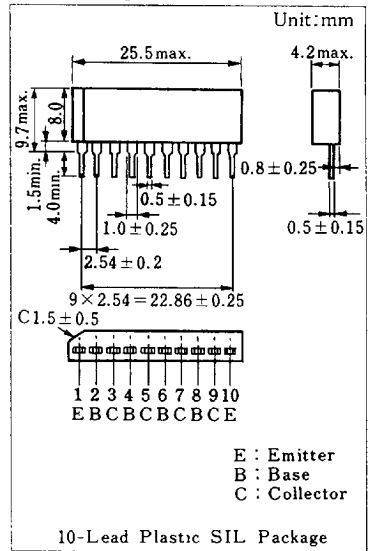
■ Features

- Low collector-emitter saturation voltage ($V_{CE(sat)}$)
- Good linearity of DC current gain (h_{FE})
- High collector current (I_C)
- 2 NPN elements + 2 PNP elements

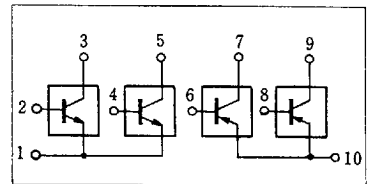
■ Absolute Maximum Ratings ($T_c=25^{\circ}C$)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	± 130	V
Collector-emitter voltage	V_{CEO}	± 80	V
Emitter-base voltage	V_{EBO}	± 7	V
Peak collector current	I_{CP}	± 8	A
Collector current	I_C	± 4	A
Power dissipation	P_D	15	W
Junction temperature	T_j	150	$^{\circ}C$
Storage temperature	T_{stg}	$-55 \sim +150$	$^{\circ}C$

■ Package Dimensions



■ Inner Circuit



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

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = \pm 100V, I_E = 0$			± 10	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = \pm 5V, I_C = 0$			± 50	μA
Collector-emitter voltage	V_{CEO}	$I_C = \pm 10mA, I_B = 0$	± 80			V
DC current gain	h_{FE1}	$V_{CE} = \pm 2V, I_C = \pm 0.1A$	45			
	h_{FE2}	$V_{CE} = \pm 2V, I_C = \pm 1A$	60		260	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = \pm 3A, I_B = \pm 0.15A$			± 0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = \pm 3A, I_B = \pm 0.15A$			± 1.5	V
Transition frequency	f_T	$V_{CE} = \pm 10V, I_C = \pm 0.5A, f = 10MHz$		30		MHz
Turn-on time	t_{on}	$I_C = \pm 1A, I_{B1} = \pm 0.1A, I_{B2} = \mp 0.1A$	(typ.) NPN:0.5, PNP:0.15			μs
Storage time	t_{stg}		(typ.) NPN:2.5, PNP:0.8			μs
Fall time	t_f			0.15		μs

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