

SLA4342

Silicon NPN Triple Diffused Planar Darlington Silicon PNP Epitaxial Planar Darlington

Maximum Ratings

(Ta = 25°C)

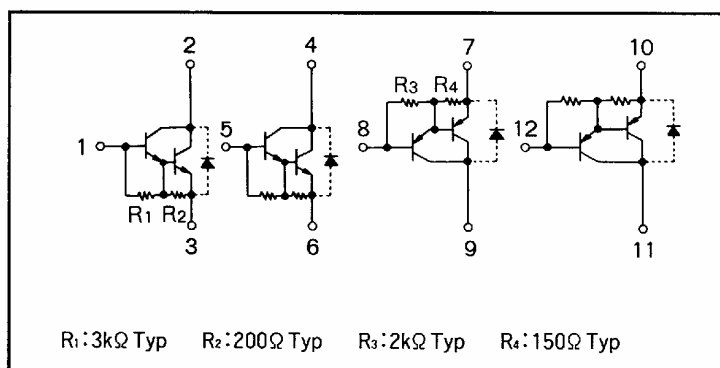
Item	Symbol	NPN	PNP	Unit
Collector-to-Base Voltage	V _{CB0}	60	− 60	V
Collector-to-Emitter Voltage	V _{CEO}	60	− 60	V
Emitter-to-Base Voltage	V _{EB0}	6	− 6	V
Collector Current	I _C	4	− 4	A
Collector Current	I _{CP}	6 (P _w ≤ 1ms, D _u ≤ 50%)		A
Base Current	I _B	0.5	− 0.5	A
Total Power Dissipation	P _T	5 (T _a = 25°C)		W
		25 (T _c = 25°C)		
Insulation Breakdown Voltage	V _{iso}	1000 (Between fin and lead pin, AC)		V _{rms}
Storage Temperature	T _{stg}	− 40 ~ + 150		°C
Thermal Resistance	θ _{j-c}	5		°C/W

Electrical Characteristics

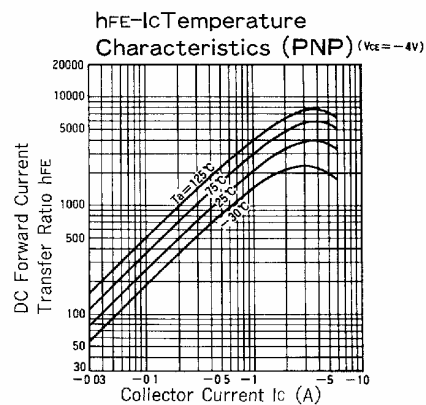
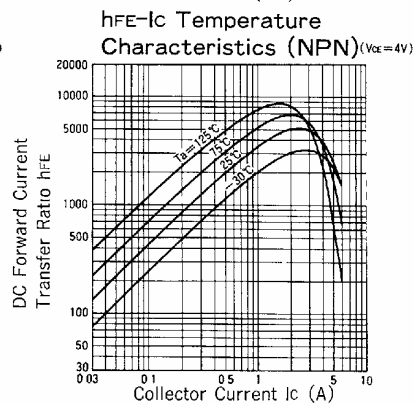
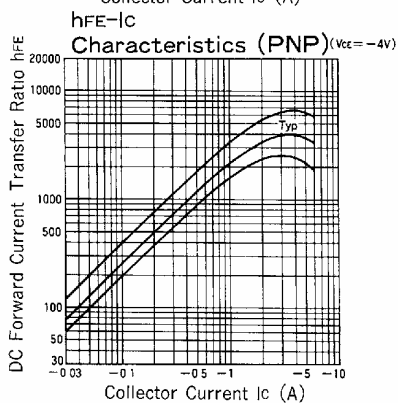
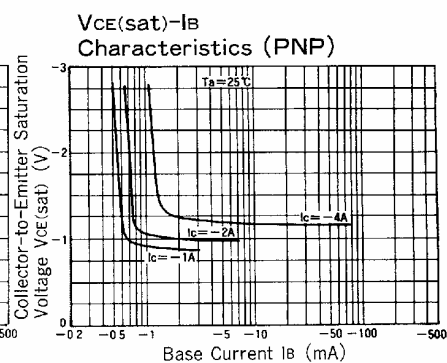
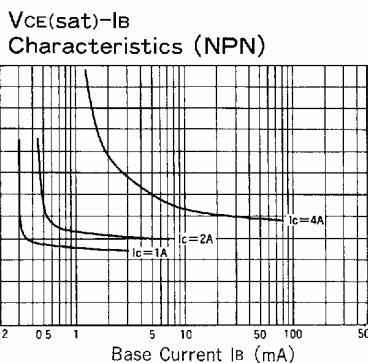
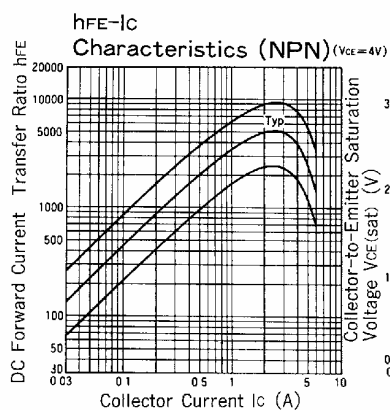
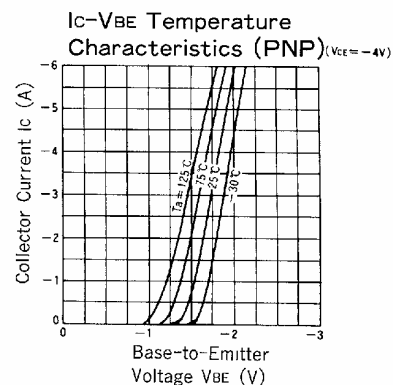
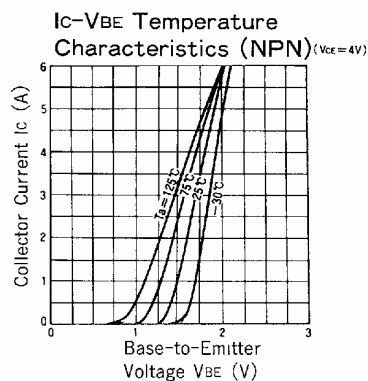
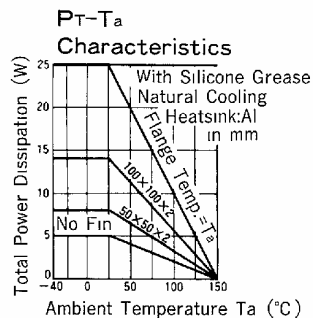
(Ta = 25°C)

Item	Symbol	NPN	PNP
Collector Cut-off Current	I _{CBO}	10μAmax (V _{CB} = 60V)	- 10μAmax (V _{CB} = - 60V)
Emitter Cut-off Current	I _{EBO}	10mAmax (V _{EB} = 6V)	- 10mAmax (V _{EB} = - 6V)
Collector-to-Emitter Voltage	V _{CE0}	60Vmin (I _C = 10mA)	- 60Vmin (I _C = - 10mA)
DC Forward Current Transfer Ratio	h _{FE}	2000min (V _{CE} = 4V, I _C = 3A)	2000min (V _{CE} = - 4V, I _C = - 3A)
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	1.5Vmax (I _C = 3A, I _B = 6mA)	- 1.5Vmax (I _C = - 3A, I _B = - 6mA)

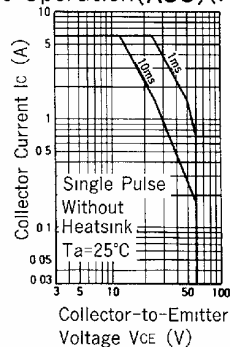
Equivalent Circuit Diagram



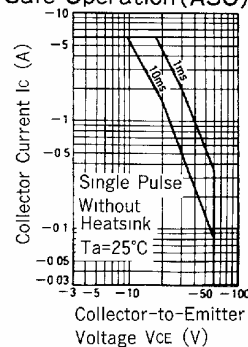
Characteristic Curves



Maximum Area For Safe Operation (ASO) (NPN)



Maximum Area For Safe Operation (ASO) (PNP)

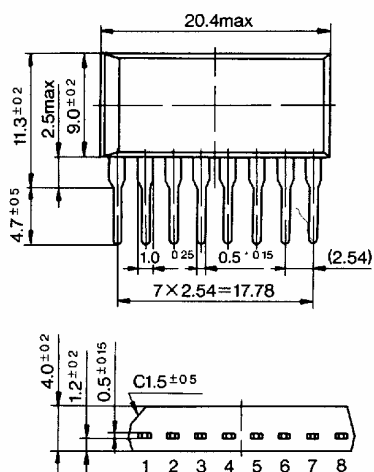


Notes on using products

Outline Drawings (Unit:in mm)

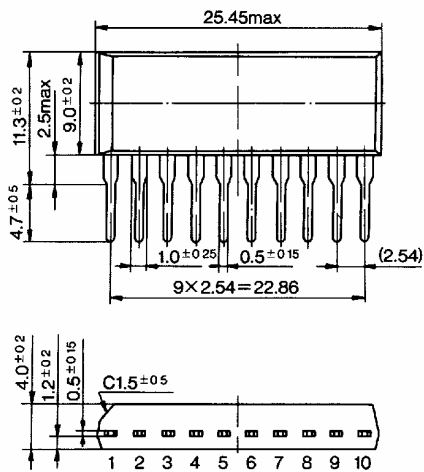
STA Family

STA300 Series



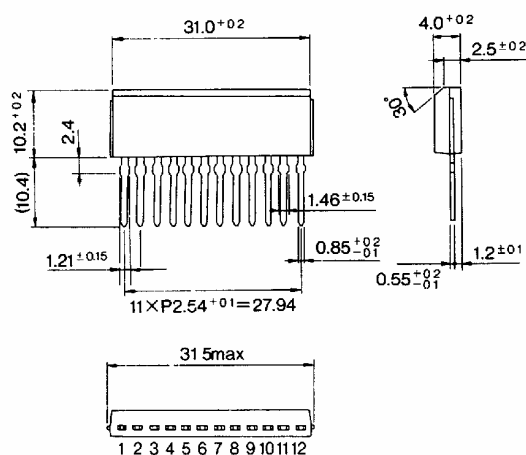
Weight Approx. 2.0g

STA400 Series



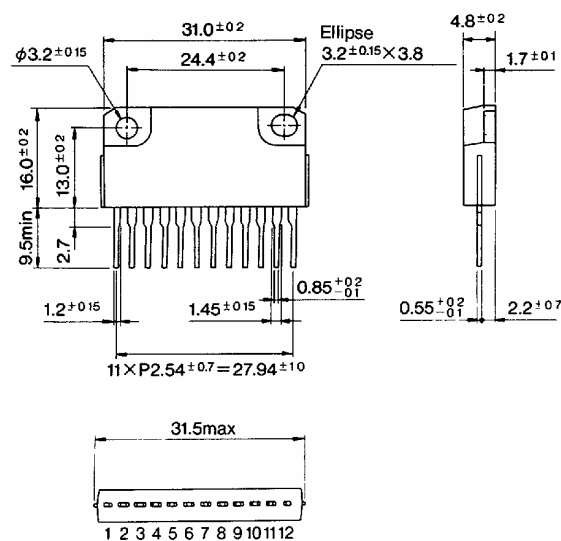
Weight Approx. 2.6g

SMA Family



Weight Approx. 4.0g

SLA Family



Weight Approx. 6.0g