

SLA6010

Silicon NPN Triple Diffused Planar Darlington Silicon PNP Epitaxial Planar Darlington

Maximum Ratings

(Ta=25°C)

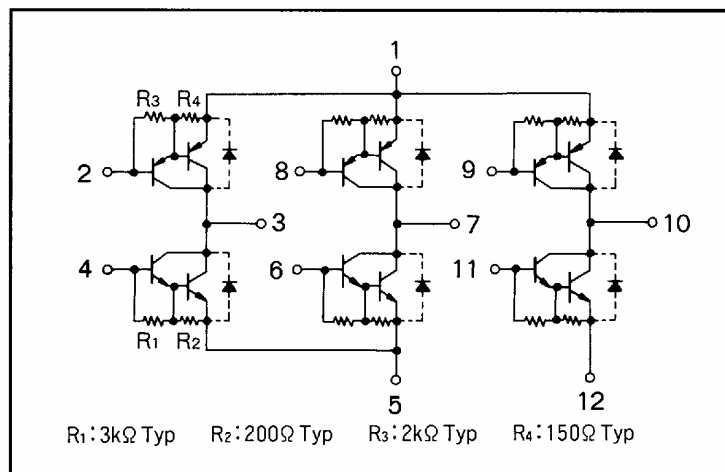
Item	Symbol	NPN	PNP	Unit
Collector-to-Base Voltage	V _{CB0}	60	-60	V
Collector-to-Emitter Voltage	V _{CE0}	60	-60	V
Emitter-to-Base Voltage	V _{EB0}	6	-6	V
Collector Current	I _c	4	-4	A
Collector Current	I _{cP}	6 (Pw ≤ 1ms, Du ≤ 50%)	-6 (Pw ≤ 1ms, Du ≤ 50%)	A
Base Current	I _B	0.5	-0.5	A
Total Power Dissipation	P _T	5 (Ta=25°C)		W
		25 (Tc=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)

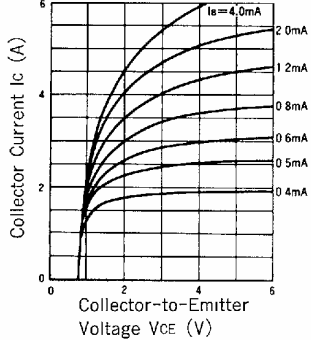
Item	Symbol	NPN	PNP
Collector Cut-off Current	I _{cBO}	10μA _{max} (V _{CB} =60V)	-10μA _{max} (V _{CB} =-60V)
Emitter Cut-off Current	I _{eBO}	10mA _{max} (V _{EB} =6V)	-10mA _{max} (V _{EB} =-6V)
Collector-to-Emitter Voltage	V _{CE0}	60V _{min} (I _c =10mA)	-60V _{min} (I _c =-10mA)
DC Forward Current Transfer Ratio	h _{FE}	2000 _{min} (V _{CE} =4V, I _c =3A)	2000 _{min} (V _{CE} =-4V, I _c =-3A)
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	1.5V _{max} (I _c =3A, I _B =6mA)	-1.5V _{max} (I _c =-3A, I _B =-6mA)

Equivalent Circuit Diagram

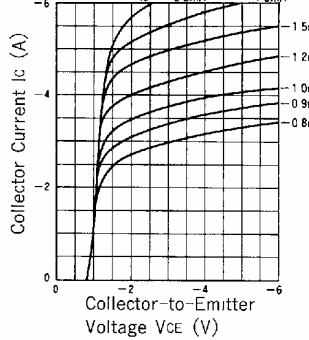


Characteristic Curves

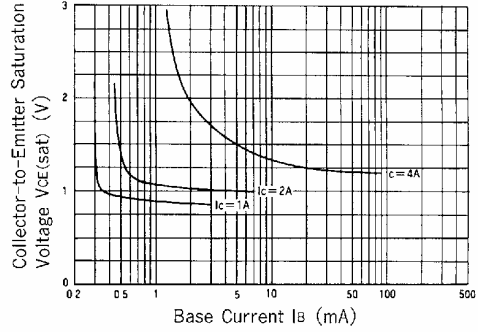
Ic-VCE Characteristics (NPN)



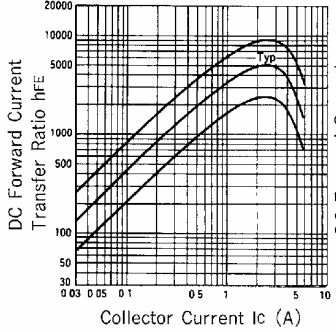
Ic-VCE Characteristics (PNP)



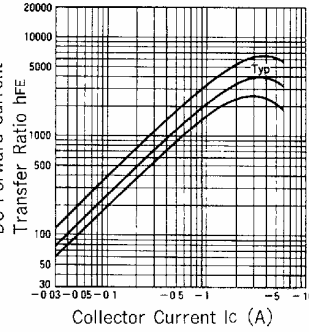
VCE(sat)-Ib Characteristics (NPN)



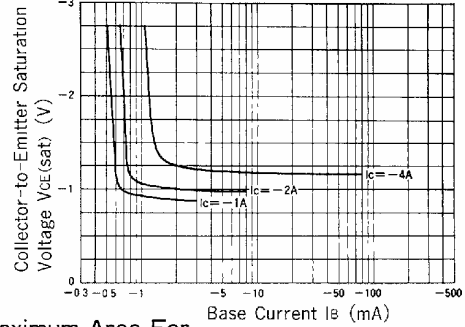
hFE-Ic Characteristics (NPN) (VCE=4V)



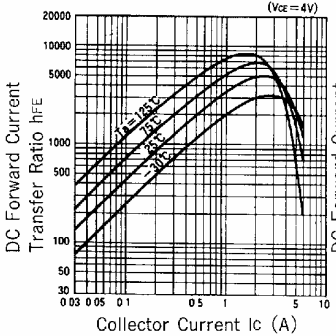
hFE-Ic Characteristics (PNP) (VCE=-4V)



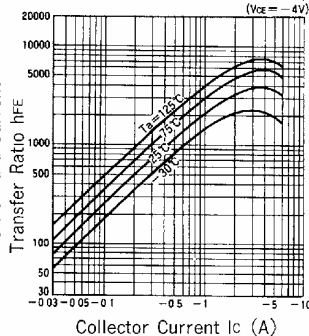
VCE(sat)-Ib Characteristics (PNP)



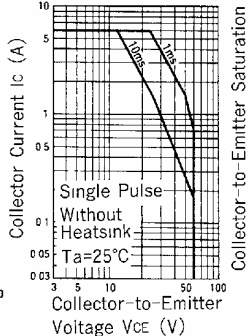
hFE-Ic Temperature Characteristics (NPN) (VCE=4V)



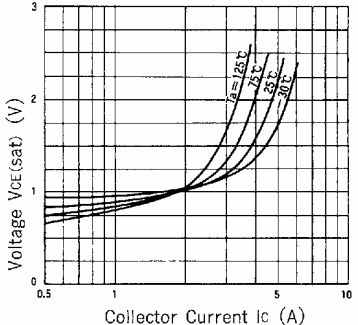
hFE-Ic Temperature Characteristics (PNP) (VCE=-4V)



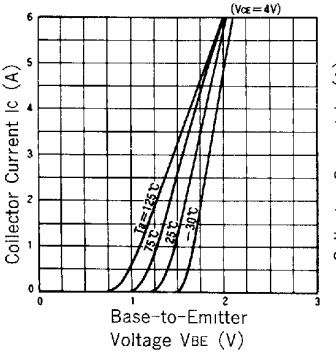
Maximum Area For Safe Operation (ASO) (NPN)



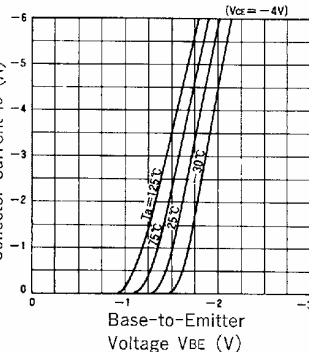
VCE(sat)-Ic Temperature Characteristics (NPN) (Ic/Ib=1000)



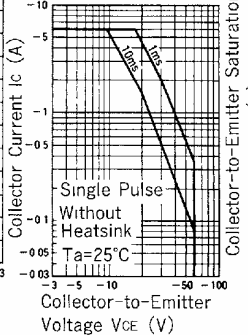
Ic-VBE Temperature Characteristics (NPN) (VCE=4V)



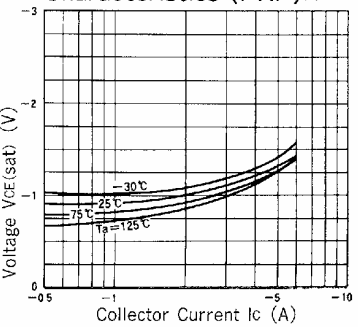
Ic-VBE Temperature Characteristics (PNP) (VCE=-4V)



Maximum Area For Safe Operation (ASO) (PNP)



VCE(sat)-Ic Temperature Characteristics (PNP) (Ic/Ib=1000)

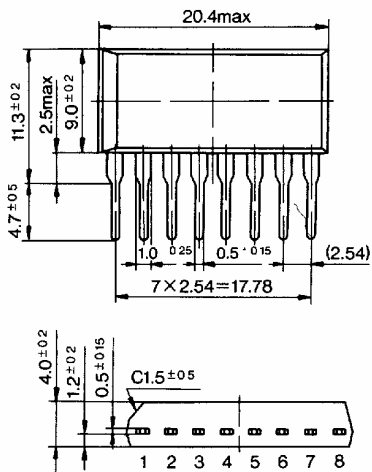


Notes on using products

Outline Drawings (Unit:in mm)

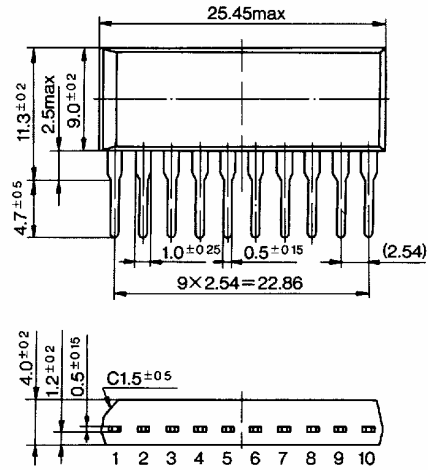
STA Family

STA300 Series



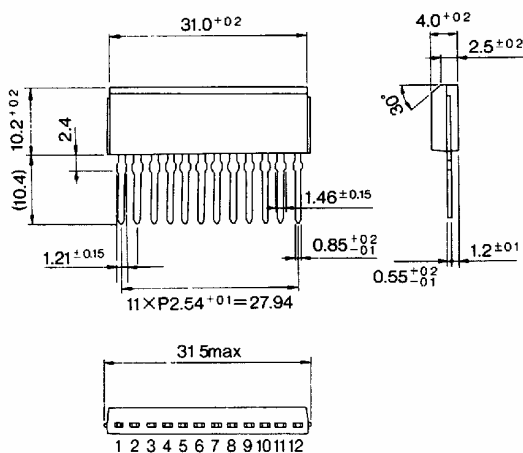
Weight Approx. 2.0g

STA400 Series



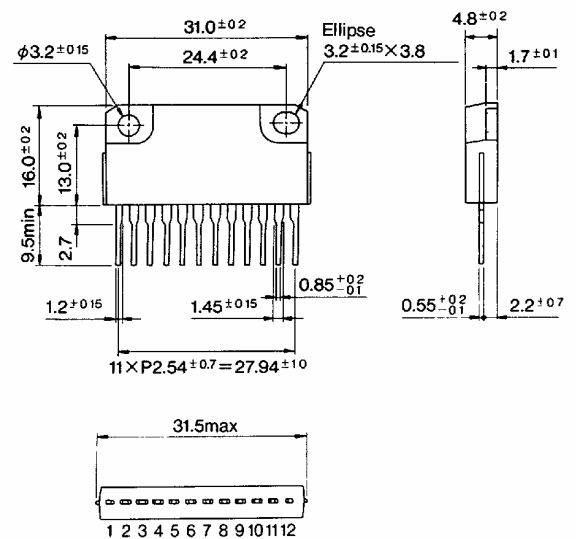
Weight Approx. 2.6g

SMA Family



Weight Approx. 4.0g

SLA Family



Weight Approx. 6.0g