

STA341M

Silicon NPN, PNP Triple Diffused Planar

Maximum Ratings

(Ta = 25°C)

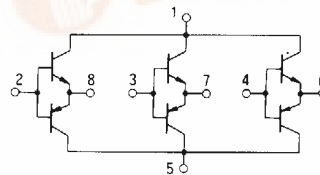
Item	Symbol	Ratings		Unit
		NPN	PNP	
Collector-to-Base Voltage	V _{CB0}	30	-30	V
Collector-to-Emitter Voltage	V _{CE0}	30	-30	V
Emitter-to-Base Voltage	V _{EB0}	6	-6	V
Collector Current	I _c	1	-1	A
Base Current	I _B	0.1	-0.1	A
Total Power Dissipation	P _T	2.2 (Ta = 25°C)		W
Operating Junction Temperature	T _J	150		°C
Storage Temperature	T _{stg}	-40 ~ +150		°C

Electrical Characteristics

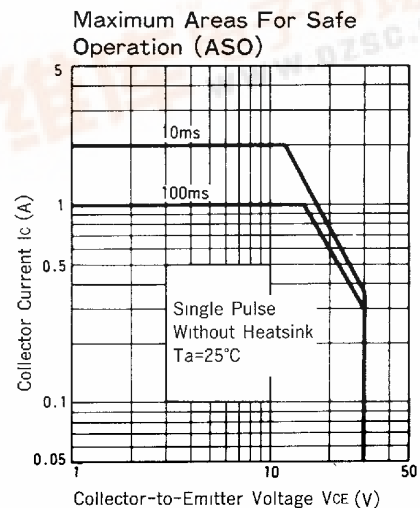
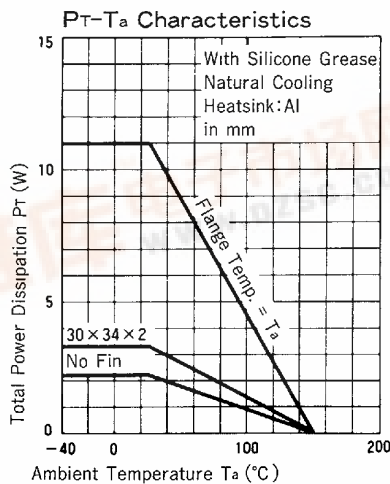
(Ta = 25°C)

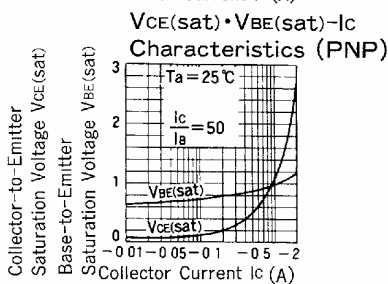
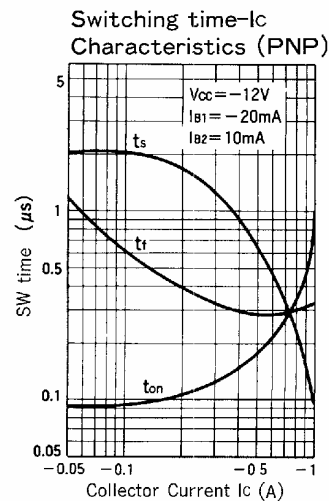
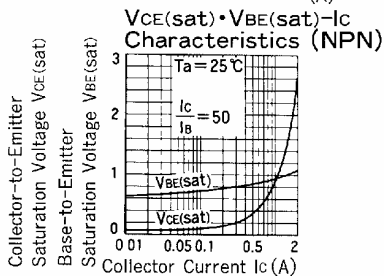
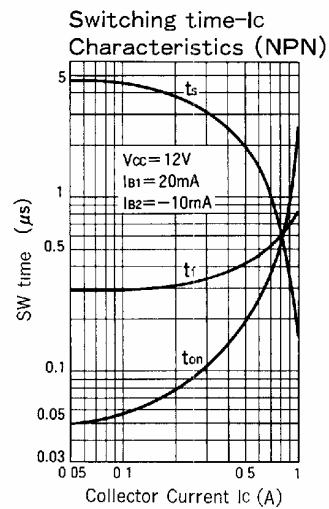
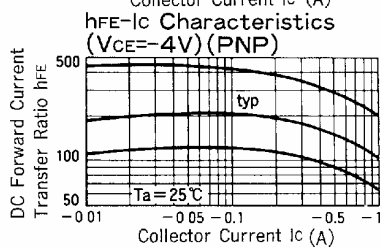
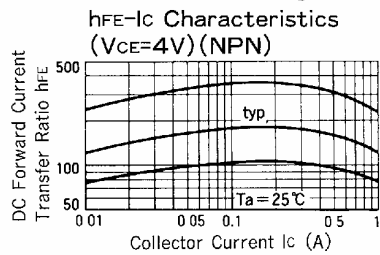
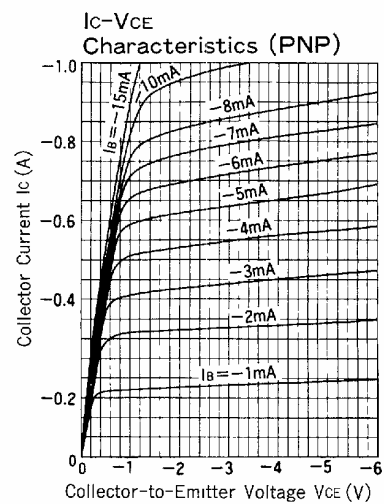
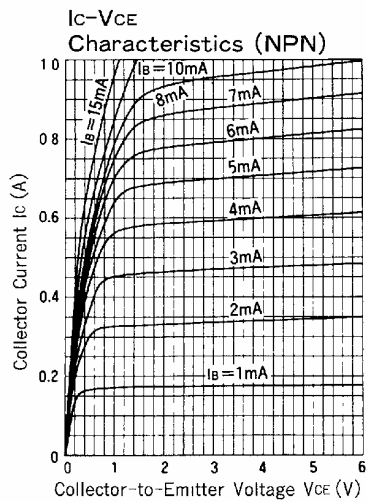
Item	Symbol	Conditions	NPN			Conditions	PNP			Unit
			min	typ	max		min	typ	max	
Collector Cut-off Current	I _{CBO}	V _{CB} = -30V			10	V _{CB} = -30V			-10	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} = 6V			10	V _{EB} = -6V			-10	mA
Collector-to-Emitter Voltage	V _{CE0}	I _c = 10mA	30			I _c = -10mA	-30			V
DC Forward Current Transfer Ratio	h _{FE}	V _{CE} = 4V, I _c = 0.3A	100			V _{CE} = -4V, I _c = -0.3A	100			
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _c = 300mA, I _B = 10mA			0.5	I _c = -300mA, I _B = -10mA			-0.5	V
Turn on Time	t _{on}	I _c = 0.3A I _{B1} = -I _{B2} = 10mA		0.22		I _c = -0.3A I _{B1} = -I _{B2} = -10mA		0.25		μs
Storage Time	t _{stg}			1.4				0.54		μs
Fall Time	t _f			0.28				0.3		μs

Equivalent Circuit Diagram



Characteristic Curves



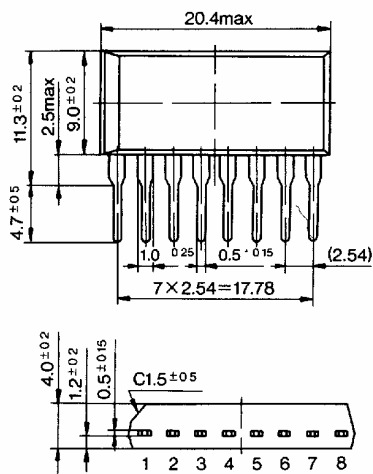


Notes on using products

Outline Drawings (Unit:in mm)

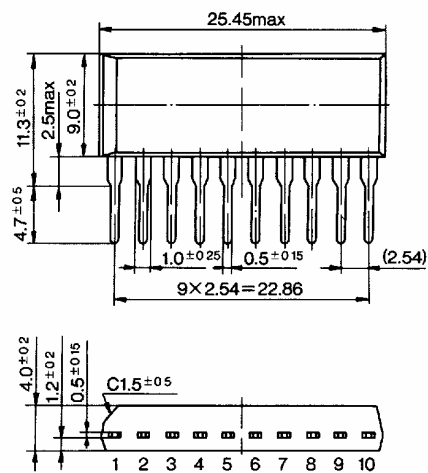
STA Family

STA300 Series



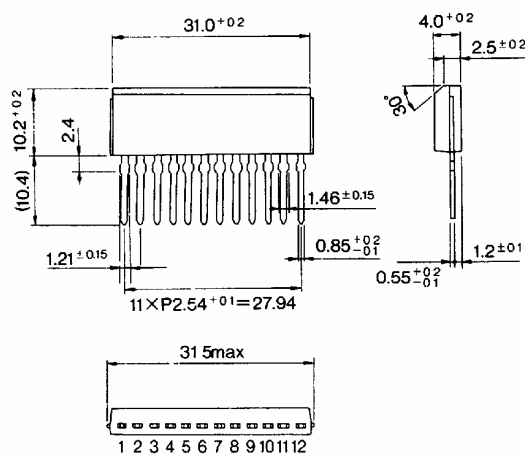
Weight Approx. 2.0g

STA400 Series



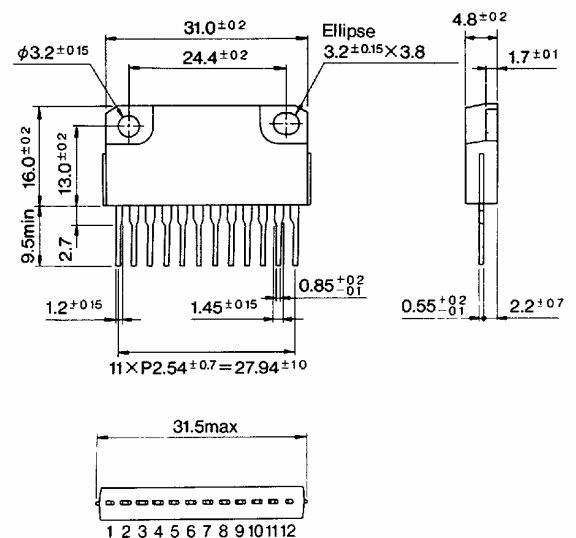
Weight Approx. 2.6g

SMA Family



Weight Approx. 4.0g

SLA Family



Weight Approx. 6.0g