

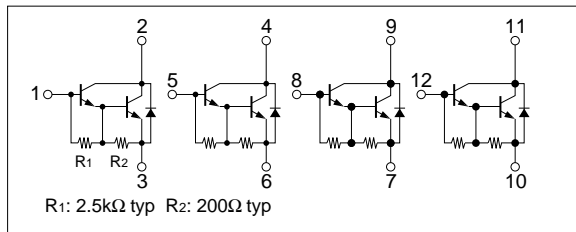
Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V _{CB0}	120	V
V _{CEO}	120	V
V _{EB0}	6	V
I _c	5	A
I _{cP}	8 (PW≤1ms, Du≤50%)	A
I _B	0.5	A
P _T	5 (Ta=25°C)	W
	25 (Tc=25°C)	
V _{ISO}	1000 (Between fin and lead pin, AC)	V _{rms}
T _j	150	°C
T _{stg}	-40 to +150	°C
θ _{j-c}	5	°C/W

Electrical characteristics (Ta=25°C)

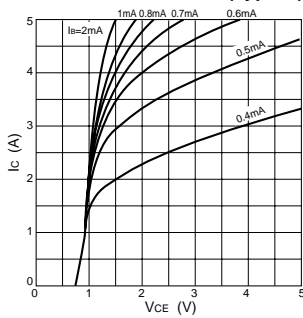
Symbol	Specification			Unit	Conditions
	min	typ	max		
I _{CB0}			10	μA	V _{CB} =120V
I _{EB0}			10	mA	V _{EB} =6V
V _{CEO}	120			V	I _c =25mA
h _{FE}	2000	5000	15000		V _{CE} =2V, I _c =3A
V _{CE(sat)}		1.0	1.5	V	I _c =3A, I _B =3mA
V _{BE(sat)}		1.6	2.0	V	
t _{on}		0.5		μs	V _{CC} ≐30V,
t _{stg}		5.5		μs	I _c =3A,
t _f		1.5		μs	I _{B1} =-I _{B2} =3mA

Equivalent circuit diagram

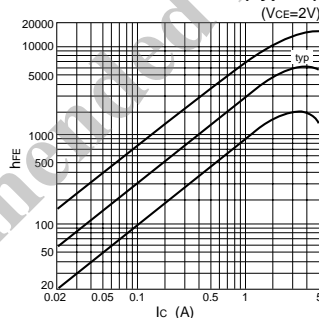


Characteristic curves

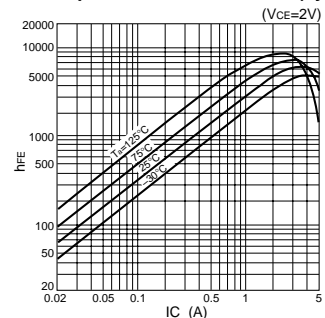
I_c-V_{CE} Characteristics (Typical)



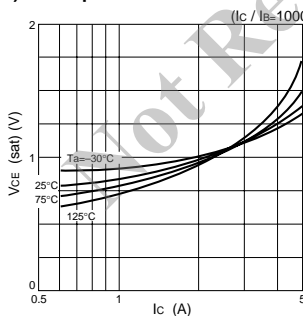
h_{FE}-I_c Characteristics (Typical) (V_{CE}=2V)



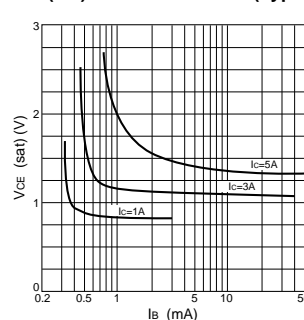
h_{FE}-I_c Temperature Characteristics (Typical) (V_{CE}=2V)



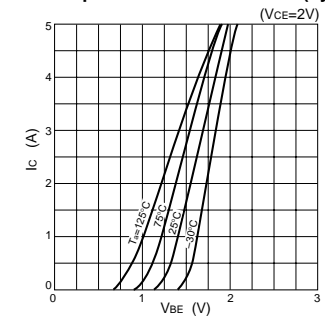
V_{CE(sat)}-I_c Temperature Characteristics (Typical) (I_c / I_B=1000)



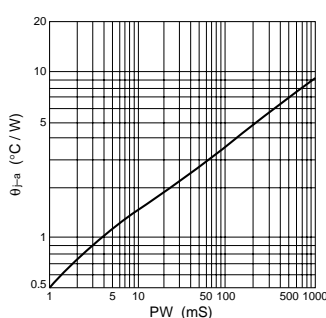
V_{CE(sat)}-I_B Characteristics (Typical)



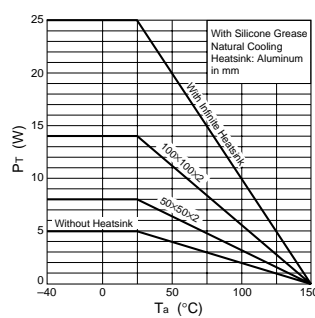
I_c-V_{BE} Temperature Characteristics (Typical) (V_{CE}=2V)



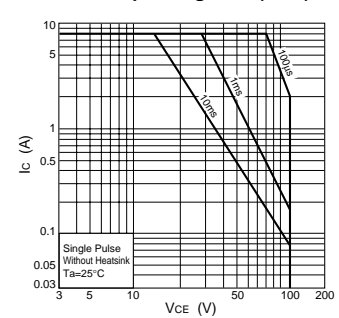
θ_{j-a}-PW Characteristics



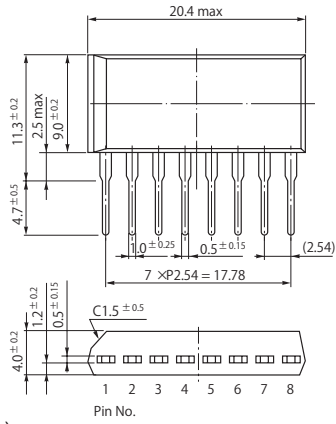
P_T-T_a Characteristics



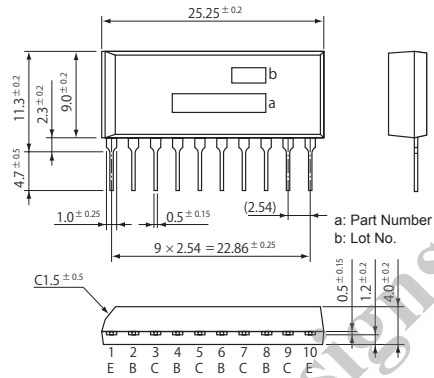
Safe Operating Area (SOA)



• SIP 8 (STA8Pin)



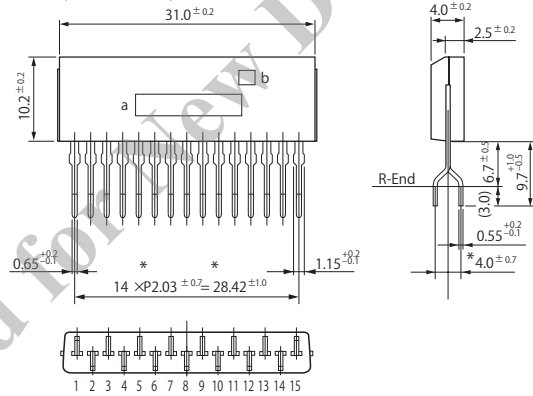
• SIP 10 (STA10Pin)



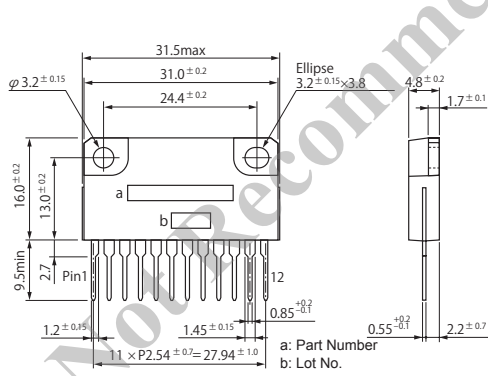
• SIP 12 (SMA12Pin)



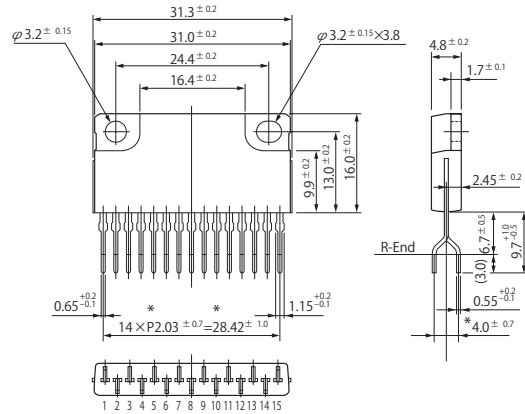
• SIP 15 (SMA15Pin)



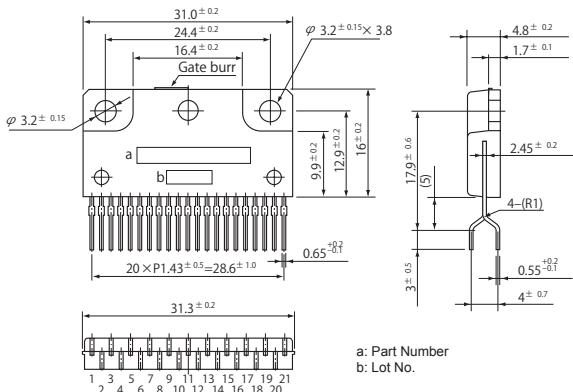
• SIP 12 with Fin (SLA12Pin)



• SIP 15 with Fin (SLA15Pin)



• SIP 21 with Fin (SLA21Pin)



(Unit:mm)