

Absolute maximum ratings

(Ta=25°C)

Symbol	Ratings	Unit
V _{CB0}	200	V
V _{CEO}	200	V
V _{EB0}	6	V
I _C	3	A
I _{CP}	6 (PW≤10ms, Du≤50%)	A
I _B	0.2	A
I _F	3 (PW≤0.5ms, Du≤25%)	A
I _{FSM}	6 (PW≤10ms, single)	A
V _R	200	V
P _T	5 (Ta=25°C) 25 (Tc=25°C)	W
T _J	150	°C
T _{stg}	-40 to +150	°C

Electrical characteristics

(Ta=25°C)

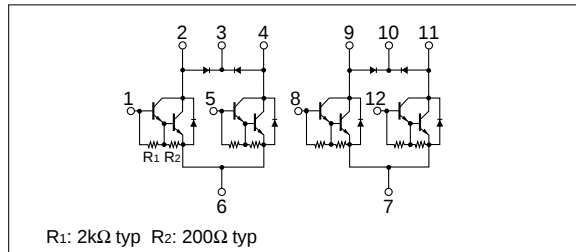
Symbol	Specification			Unit	Conditions
	min	typ	max		
I _{CBO}			10	μA	V _{CB} =200V
I _{EBO}			10	mA	V _{EB} =6V
V _{CEO}	200			V	I _C =10mA
h _{FE}	1000	6000	15000		V _{CE} =4V, I _C =1.5A
V _{CE(sat)}		1.1	1.5	V	I _C =1.5A, I _B =3mA
V _{BE(sat)}		1.7	2.0	V	
V _{FEC}			1.5	V	I _{FEC} =2.0A

●Diode for flyback voltage absorption

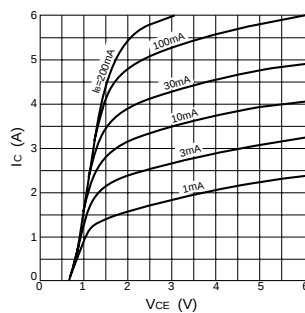
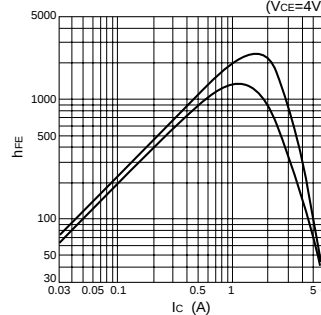
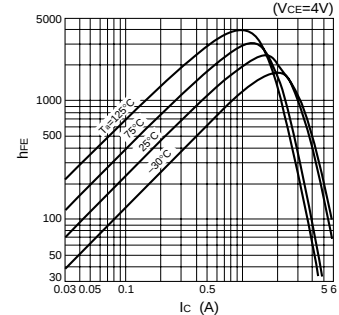
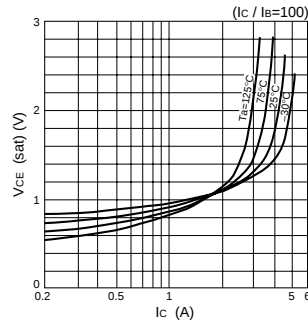
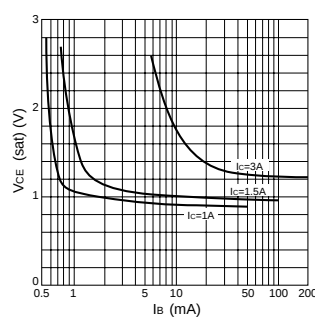
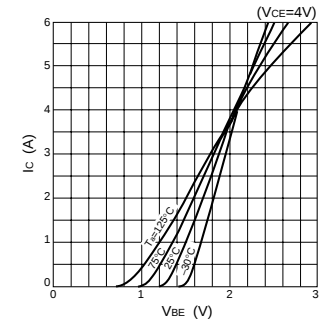
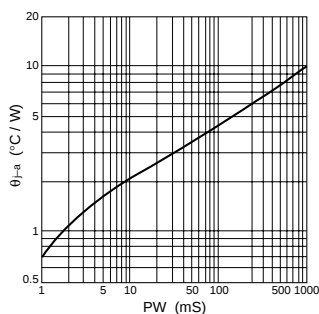
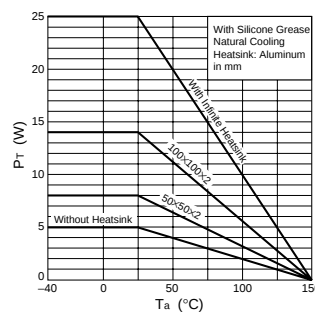
(Ta=25°C)

Symbol	Specification			Unit	Conditions
	min	typ	max		
V _R	200			V	I _R =10μA
V _F			1.6	V	I _F =1A
I _R			10	μA	V _R =200V
t _{rr}		100		ns	I _F =±100mA

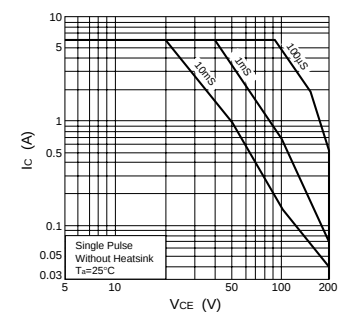
■Equivalent circuit diagram



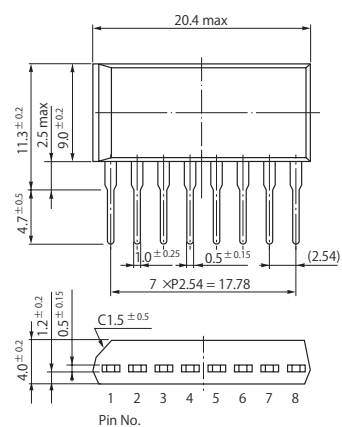
Characteristic curves

I_C-V_{CE} Characteristics (Typical)h_{FE}-I_C Characteristics (Typical)h_{FE}-I_C Temperature Characteristics (Typical)V_{CE(sat)}-I_C Temperature Characteristics (Typical)V_{CE(sat)}-I_B Characteristics (Typical)I_C-V_{BE} Temperature Characteristics (Typical)θ_{J-a}-PW CharacteristicsP_T-T_a Characteristics

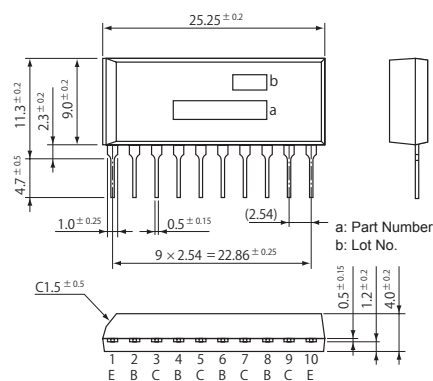
Safe Operating Area (SOA)



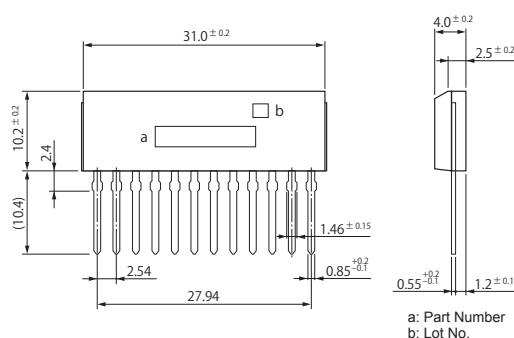
• SIP 8 (STA8Pin)



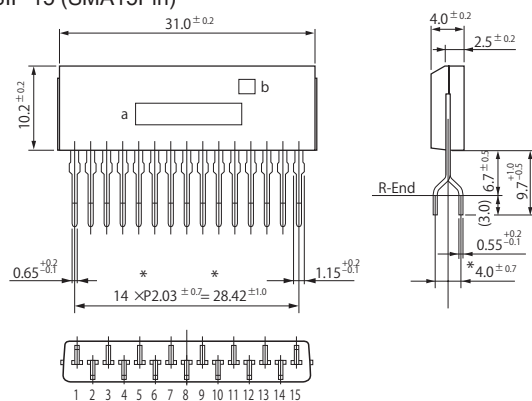
• SIP 10 (STA10Pin)



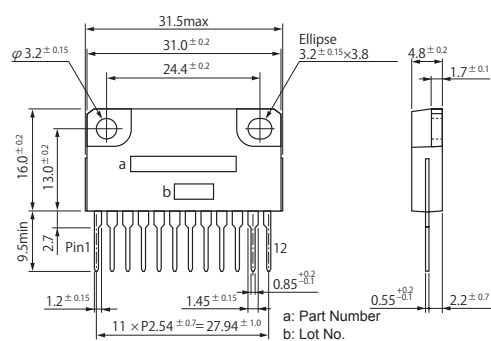
• SIP 12 (SMA12Pin)



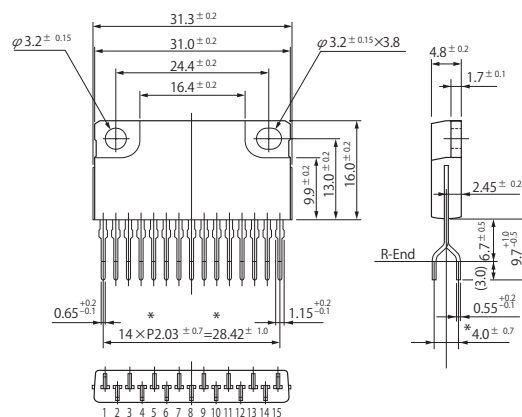
• SIP 15 (SMA15Pin)



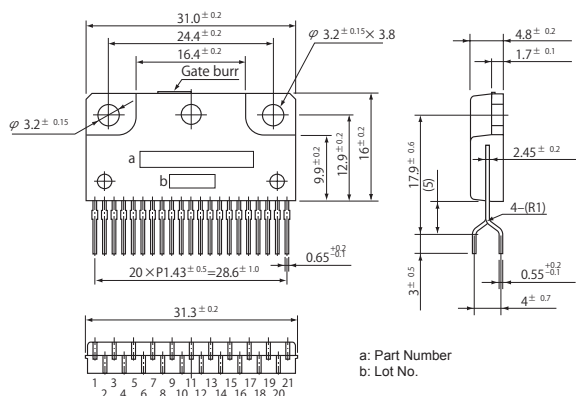
• SIP 12 with Fin (SLA12Pin)



• SIP 15 with Fin (SLA15Pin)



• SIP 21 with Fin (SLA21Pin)



(Unit:mm)