

Absolute maximum ratings

(Ta=25°C)

Symbol	Ratings	Unit
V _{CB0}	-100	V
V _{CEO}	-100	V
V _{EB0}	-6	V
I _C	-5	A
I _{CP}	-8 (PW≤1ms, D _u ≤50%)	A
I _B	-0.5	A
I _F	-5 (PW≤0.5ms, D _u ≤25%)	A
I _{FSM}	-8 (PW≤10ms, single)	A
V _R	120	V
P _T	5 (Ta=25°C) 25 (Tc=25°)	W
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)

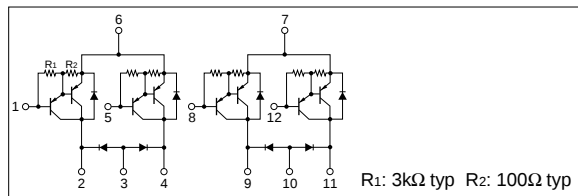
Symbol	Specification			Unit	Conditions
	min	typ	max		
I _{CB0}			-10	μA	V _{CB} =-100V
I _{EB0}			-10	mA	V _{EB} =-6V
V _{CEO}	-100			V	I _C =-10mA
h _{FE}	2000	5000	15000		V _{CE} =-2V, I _C =-3A
V _{CE(sat)}		-1.0	-1.5	V	I _C =-3A, I _B =-6mA
V _{BE(sat)}		-1.6	-2.0	V	

●Diode for flyback voltage absorption

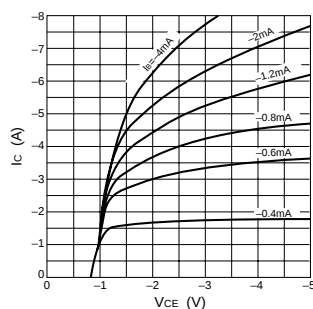
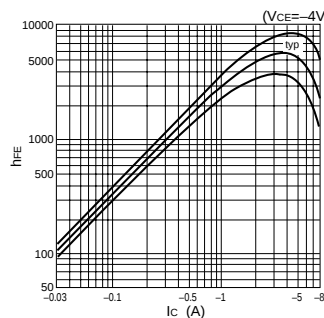
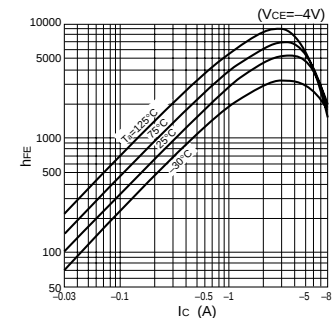
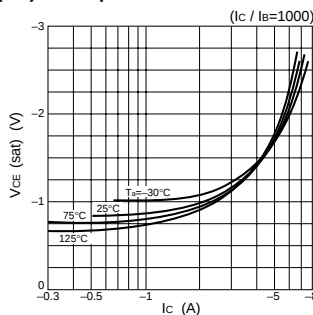
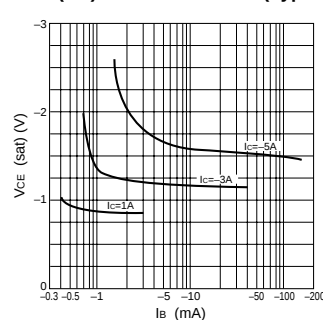
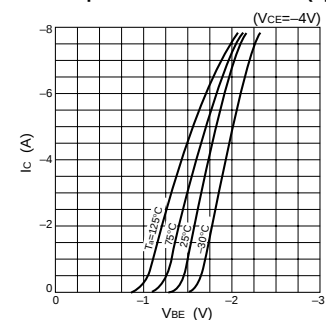
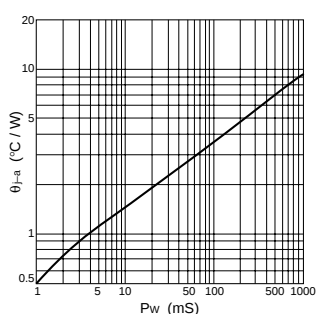
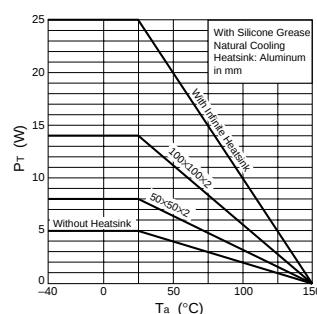
(Ta=25°C)

Symbol	Specification			Unit	Conditions
	min	typ	max		
V _R	120			V	I _R =10μA
V _F			1.2	V	I _F =1A
I _R			10	μA	V _R =120V
t _{rr}		100		ns	I _F =±100mA

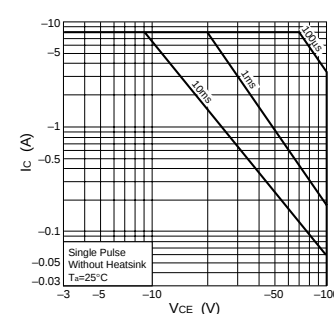
■Equivalent circuit diagram



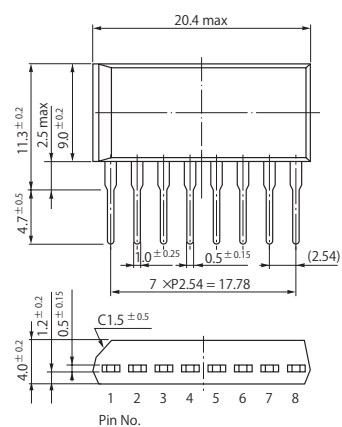
Characteristic curves

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}-P_W CharacteristicsP_T-T_a Characteristics

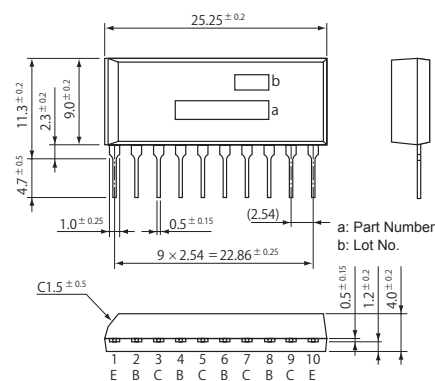
Safe Operating Area (SOA)



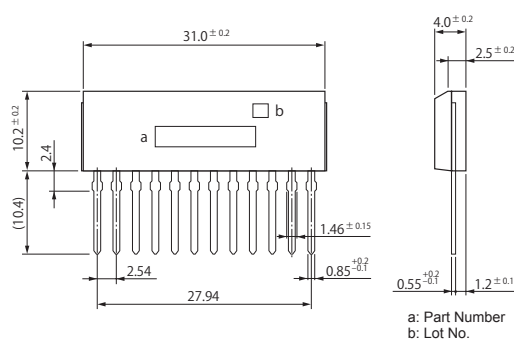
• SIP 8 (STA8Pin)



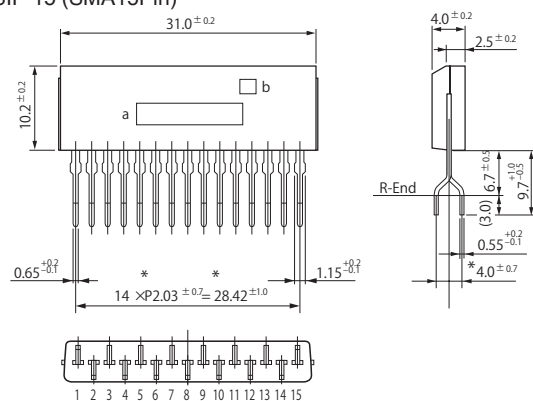
• SIP 10 (STA10Pin)



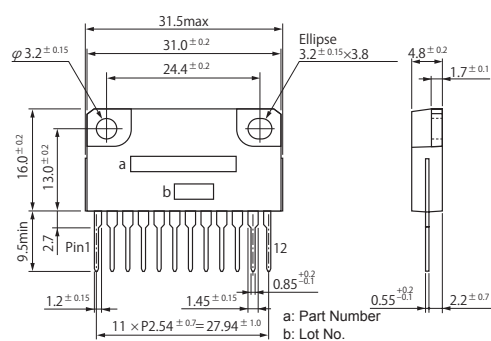
• SIP 12 (SMA12Pin)



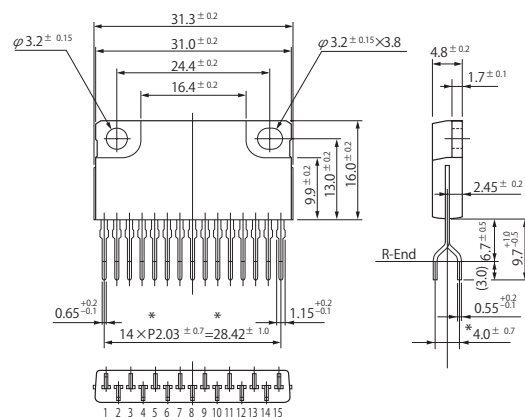
• SIP 15 (SMA15Pin)



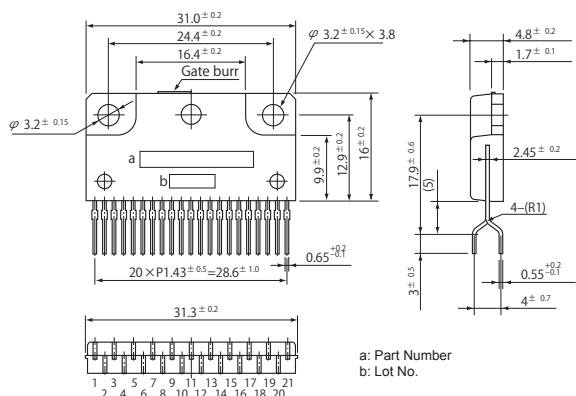
• SIP 12 with Fin (SLA12Pin)



• SIP 15 with Fin (SLA15Pin)



• SIP 21 with Fin (SLA21Pin)



(Unit:mm)