

Absolute maximum ratings

($T_a=25^\circ\text{C}$)

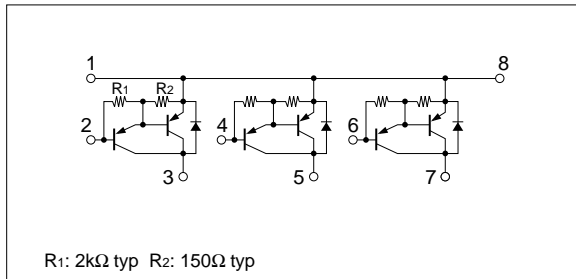
Symbol	Ratings	Unit
V_{CBO}	-50	V
V_{CEO}	-50	V
V_{EBO}	-6	V
I_C	-4	A
I_{CP}	-8 (PW \leq 10ms, Du \leq 50%)	A
P_T	3 ($T_a=25^\circ\text{C}$)	W
	15 ($T_c=25^\circ\text{C}$)	
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical characteristics

($T_a=25^\circ\text{C}$)

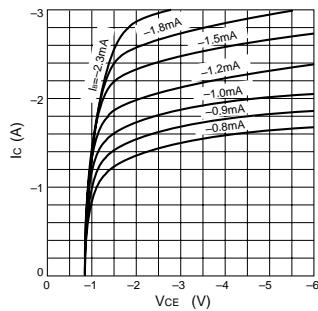
Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CBO}			-100	μA	$V_{CB}=-50\text{V}$
I_{EBO}			-10	mA	$V_{EB}=-6\text{V}$
V_{CEO}	-50			V	$I_C=-10\text{mA}$
h_{FE}	1000				$V_{CE}=-4\text{V}$, $I_C=-3\text{A}$
$V_{CE(sat)}$			-2.0	V	$I_C=-3\text{A}$, $I_B=-10\text{mA}$
t_{on}		0.4		μs	$V_{CC}=-30\text{V}$, $I_C=-3\text{A}$, $I_{B1}=-I_{B2}=-10\text{mA}$
t_{stg}		0.8		μs	
t_f		0.6		μs	

Equivalent circuit diagram

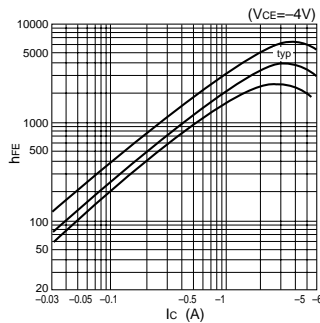


Characteristic curves

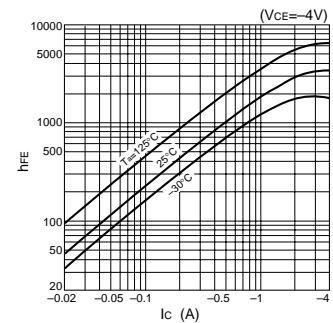
I_C - V_{CE} Characteristics (Typical)



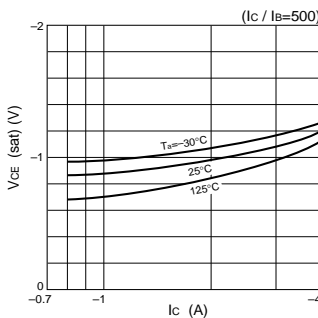
h_{FE} - I_C Characteristics (Typical)



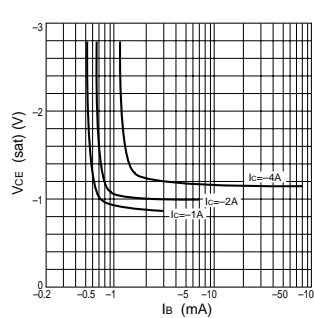
h_{FE} - I_C Temperature Characteristics (Typical)



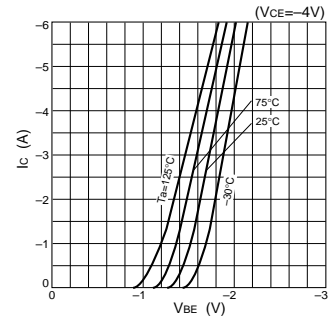
$V_{CE(sat)}$ - I_C Temperature Characteristics (Typical)



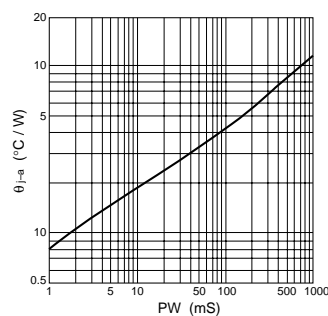
$V_{CE(sat)}$ - I_B Characteristics (Typical)



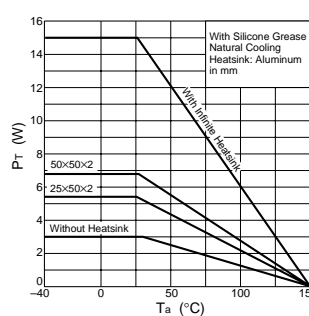
I_C - V_{BE} Temperature Characteristics (Typical)



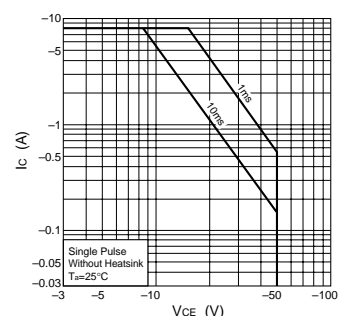
θ_{j-a} -PW Characteristics



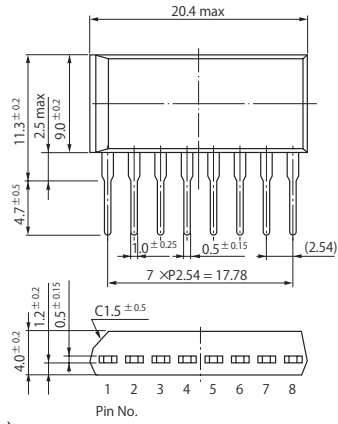
P_T - T_a Characteristics



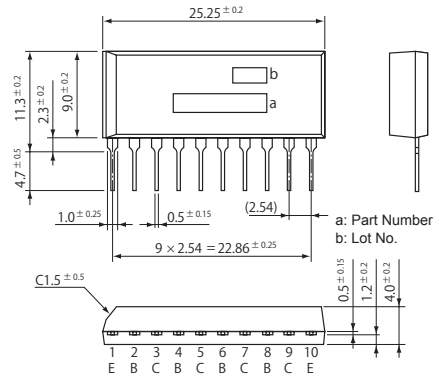
Safe Operating Area (SOA)



• SIP 8 (STA8Pin)



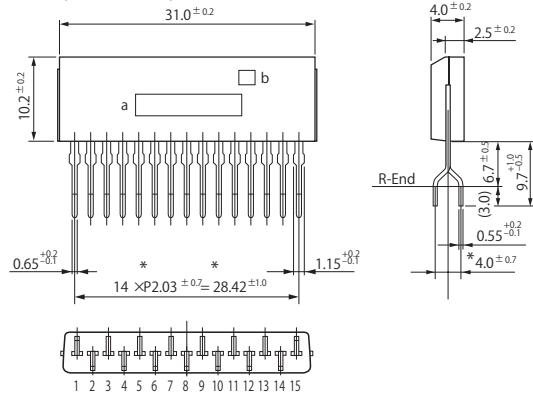
• SIP 10 (STA10Pin)



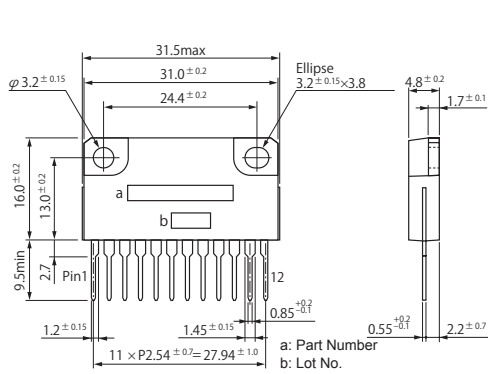
• SIP 12 (SMA12Pin)



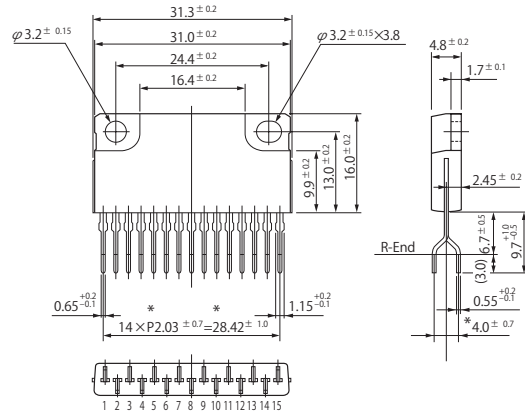
• SIP 15 (SMA15Pin)



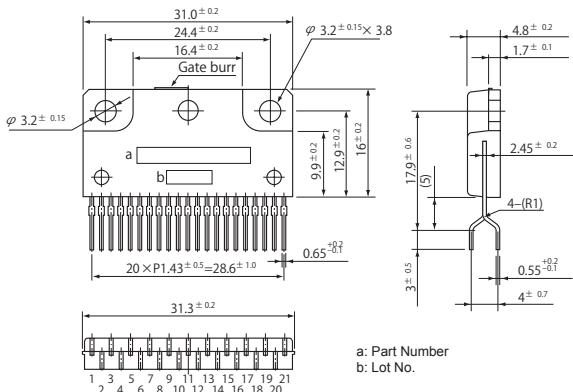
• SIP 12 with Fin (SLA12Pin)



• SIP 15 with Fin (SLA15Pin)



• SIP 21 with Fin (SLA21Pin)



(Unit:mm)