

Absolute maximum ratings

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

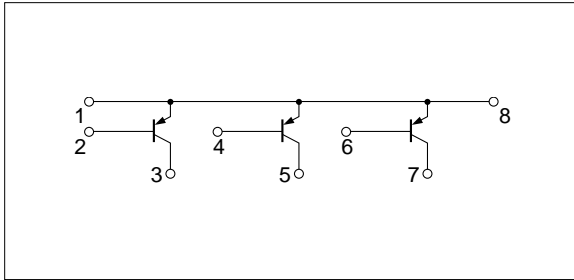
Symbol	Ratings	Unit
V_{CB0}	-50	V
V_{CE0}	-50	V
V_{EB0}	-5	V
I_c	-3	A
I_{cP}	-5 (PW \leq 1ms, Du \leq 50%)	A
I_B	-1	A
P_T	3 ($T_a=25^\circ\text{C}$)	W
	15 ($T_c=25^\circ\text{C}$)	
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical characteristics

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

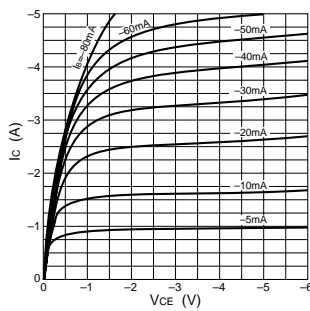
Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CB0}			-10	μA	$V_{CB}=-50\text{V}$
I_{EB0}			-10	μA	$V_{EB}=-8\text{V}$
V_{CE0}	-50			V	$I_c=-25\text{mA}$
h_{FE}	100		350		$V_{CE}=-4\text{V}$, $I_c=-1\text{A}$
$V_{CE(sat)}$			-1.0	V	$I_c=-2\text{A}$, $I_B=-40\text{mA}$
$V_{BE(sat)}$			-1.5	V	

Equivalent circuit diagram

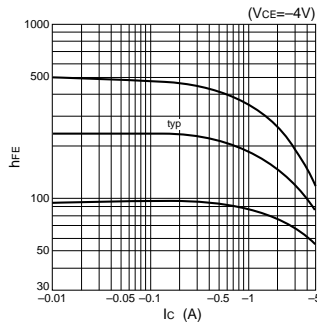


Characteristic curves

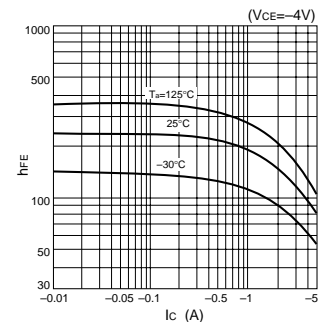
I_c - V_{CE} Characteristics (Typical)



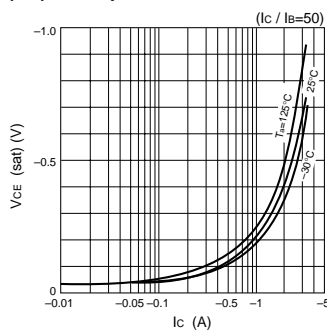
h_{FE} - I_c Characteristics (Typical)



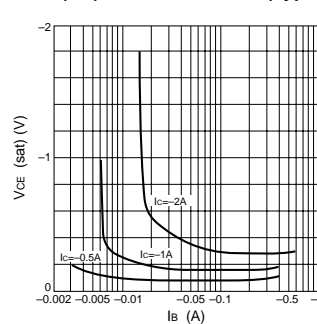
h_{FE} - I_c Temperature Characteristics (Typical)



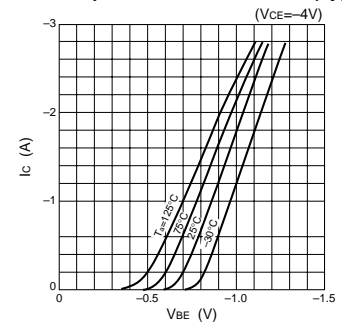
$V_{CE(sat)}$ - I_c Temperature Characteristics (Typical)



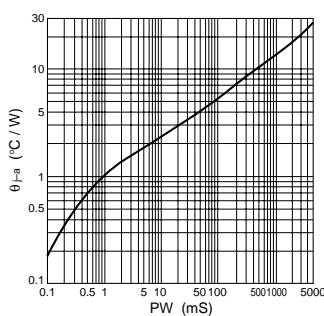
$V_{CE(sat)}$ - I_B Characteristics (Typical)



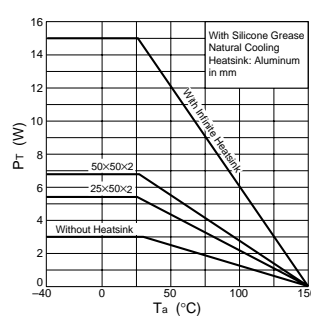
I_c - V_{BE} Temperature Characteristics (Typical)



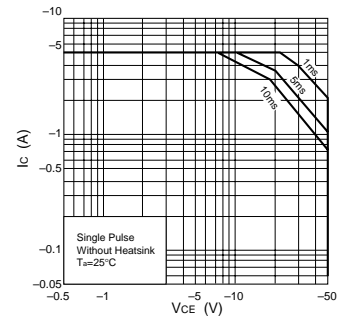
θ_{j-a} -PW Characteristics



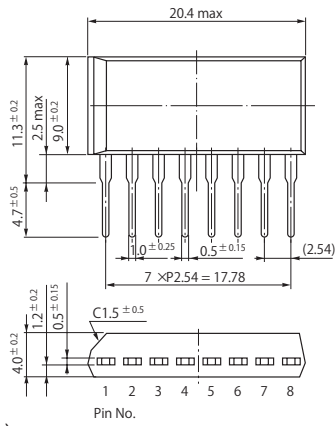
P_T - T_a Characteristics



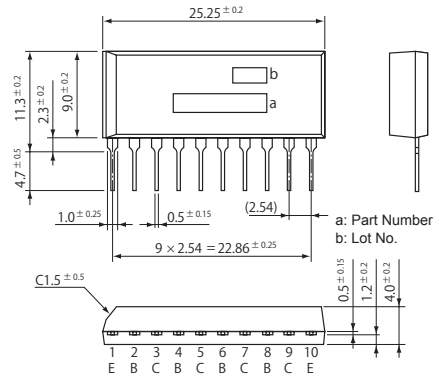
Safe Operating Area (SOA)



• SIP 8 (STA8Pin)



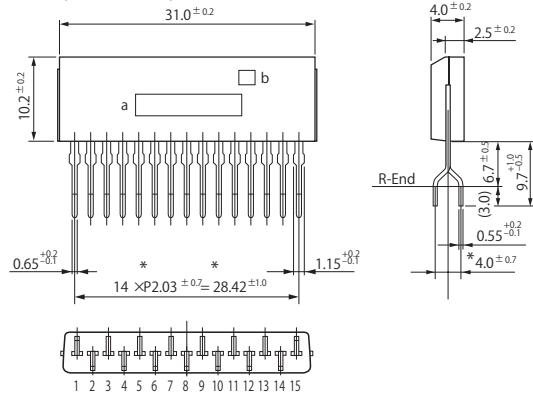
• SIP 10 (STA10Pin)



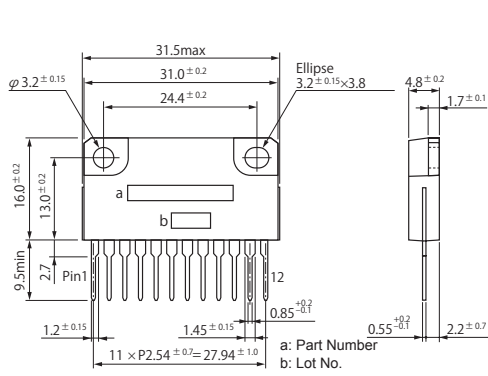
• SIP 12 (SMA12Pin)



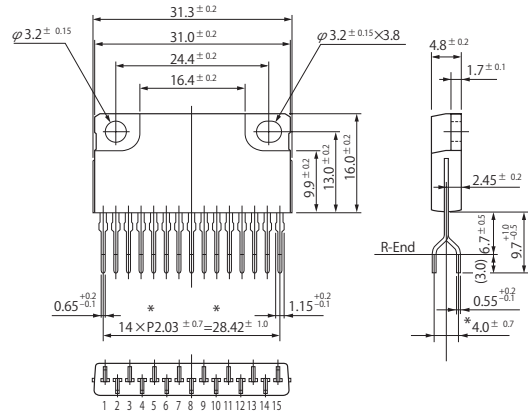
• SIP 15 (SMA15Pin)



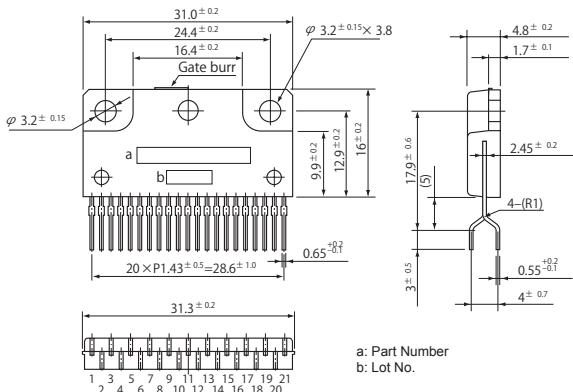
• SIP 12 with Fin (SLA12Pin)



• SIP 15 with Fin (SLA15Pin)



• SIP 21 with Fin (SLA21Pin)



(Unit:mm)