SLA6022

PNP + NPN Darlington
3-phase motor drive

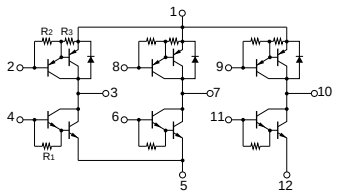
External dimensions Ⓐ···SLA (12-pin)

Absolute maximum ratings

(Ta=25°C)

Symbol	Ratings		Unit
	NPN	PNP	
V_{CBO}	100	–100	V
V_{CEO}	80	–100	V
V_{EBO}	6	–6	V
I_C	5	–5	A
I_B	0.5	–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

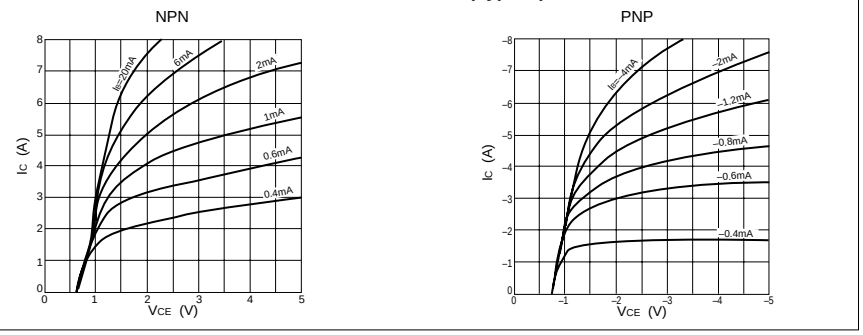
■Equivalent circuit diagram



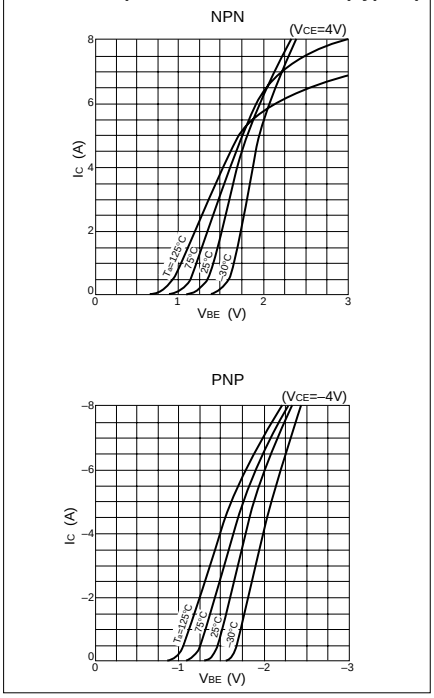
R1: 2.5kΩ typ R2: 2.5kΩ typ R3: 200Ω typ

Characteristic curves

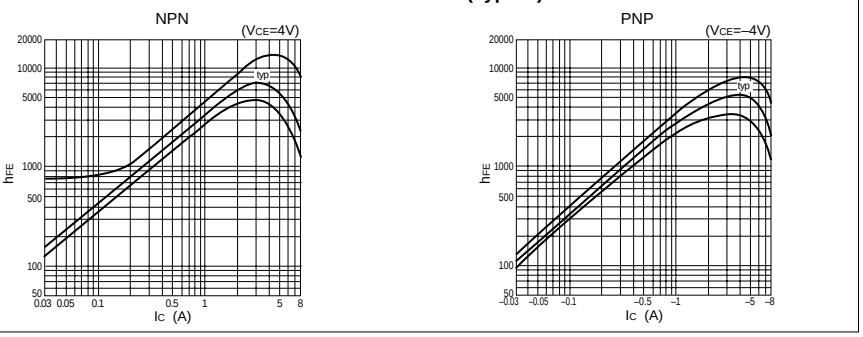
IC-VCE Characteristics (Typical)



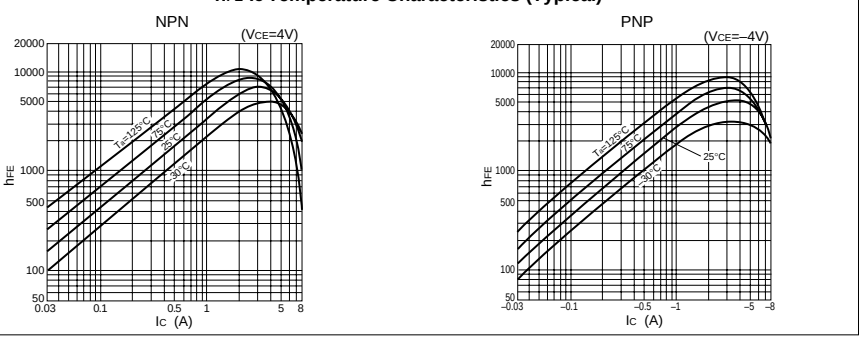
IC-VBE Temperature Characteristics (Typical)



hFE-IC Characteristics (Typical)



hFE-IC Temperature Characteristics (Typical)



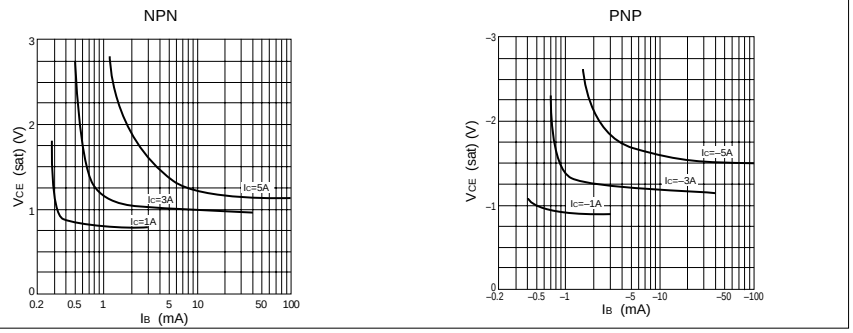
Electrical characteristics

(T_a=25°C)

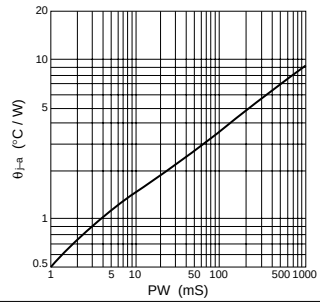
Symbol	NPN					PNP				
	Specification			Unit	Conditions	Specification			Unit	Conditions
	min	typ	max			min	typ	max		
I_{CBO}			10	μA	V_{CB}=100V			–10	μA	V_{CB}=–100V
I_{EBO}			10	μA	V_{EB}=6V			–10	mA	V_{EB}=–6V
V_{CEO}	80			V	I_C=10mA	–100			V	I_C=–10mA
h_{FE}	2000				V_{CE}=4V, I_C=3A	2000				V_{CE}=–4V, I_C=–3A
V_{CE}(sat)			1.5	V	I_C=3A, I_B=6mA			–1.5	V	I_C=–3A, I_B=–6mA
V_{FEC}				V				1.3	V	I_{FEC}=1A
t_{rr}				μs			2.0		μs	I_{FEC}=±100mA

Characteristic curves

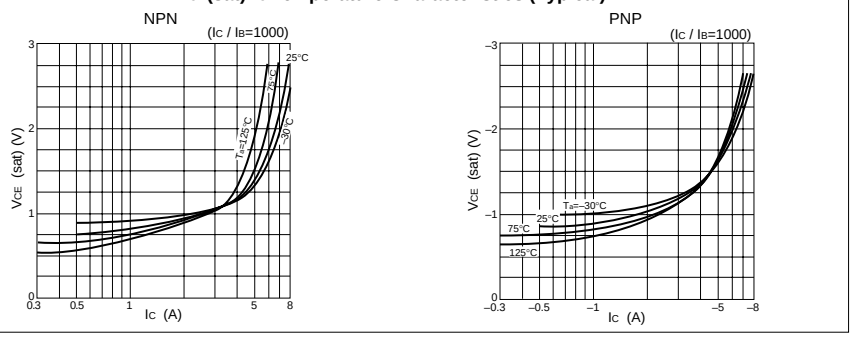
V_{CE}(sat)-I_B Characteristics (Typical)



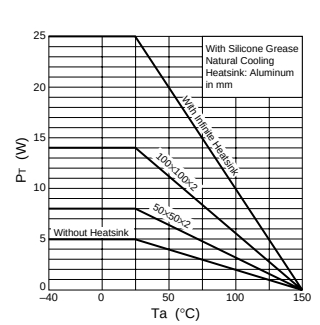
$\theta_{j\text{-}a}$-PW Characteristics



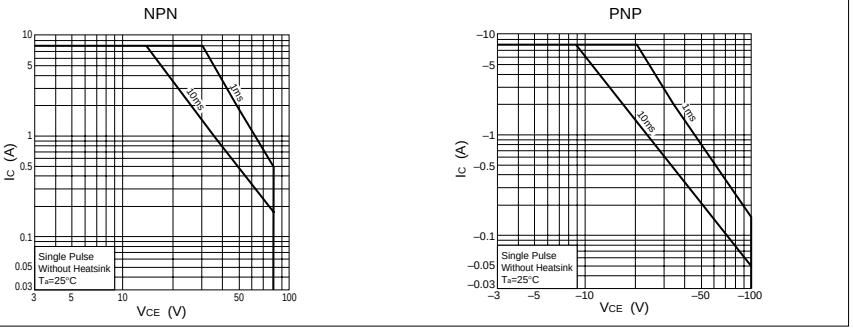
V_{CE}(sat)-I_C Temperature Characteristics (Typical)



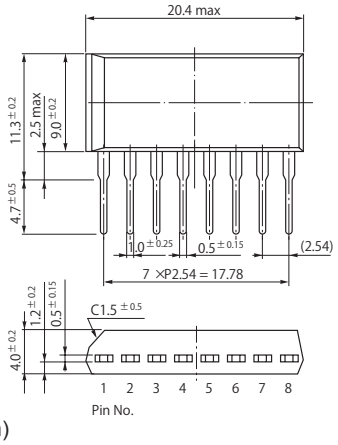
P_T-T_a Characteristics



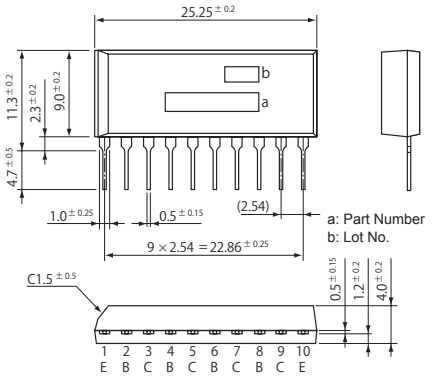
Safe Operating Area (SOA)



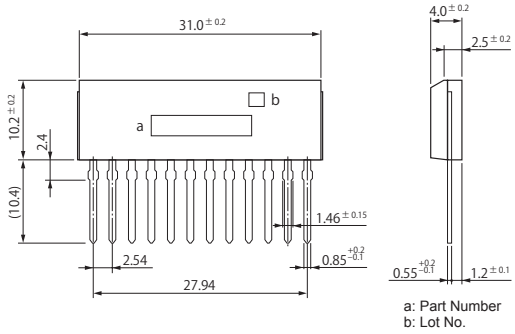
• SIP 8 (STA8Pin)



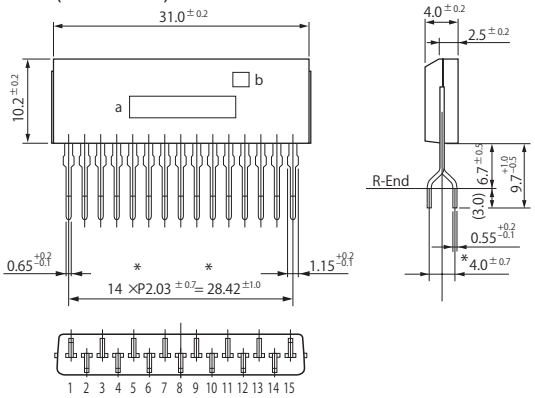
• SIP 10 (STA10Pin)



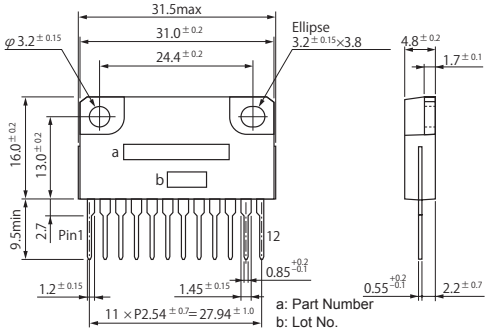
• SIP 12 (SMA12Pin)



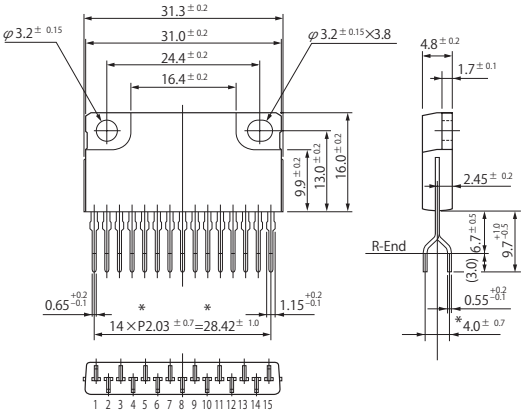
• SIP 15 (SMA15Pin)



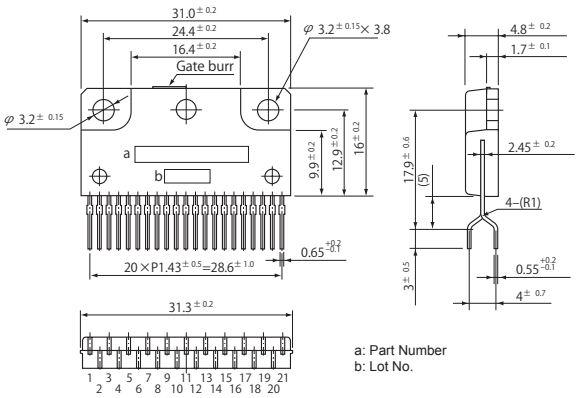
• SIP 12 with Fin (SLA12Pin)



• SIP 15 with Fin (SLA15Pin)



• SIP 21 with Fin (SLA21Pin)



(Unit:mm)