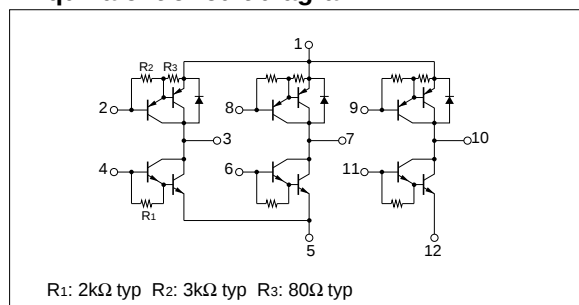


Absolute maximum ratings

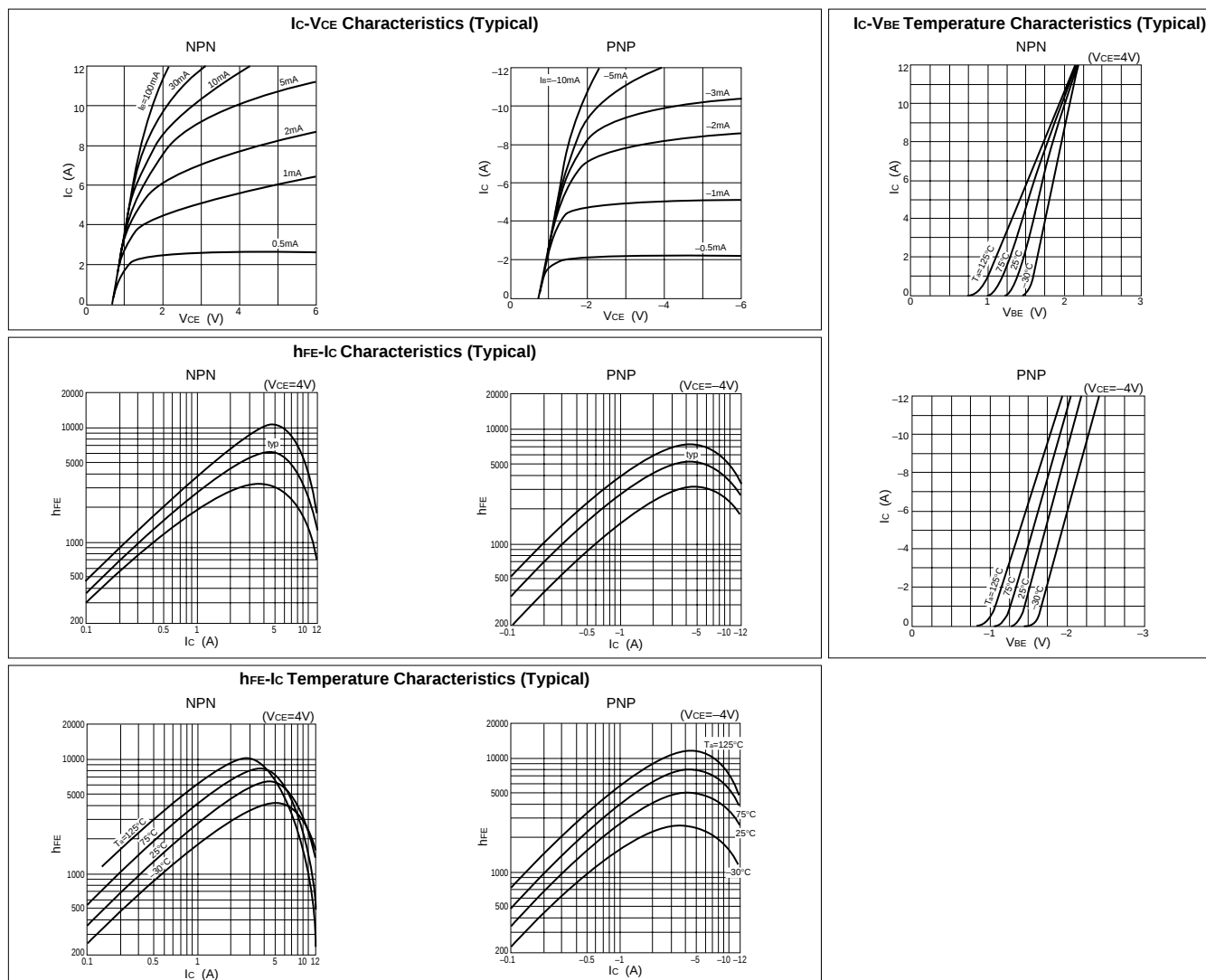
(Ta=25°C)

Symbol	Ratings		Unit
	NPN	PNP	
V _{CB0}	60	−60	V
V _{CEO}	60	−60	V
V _{EBO}	6	−6	V
I _C	6	−6	A
I _{CP}	12 (PW≤1ms, D _U ≤50%)	−12 (PW≤1ms, D _U ≤50%)	A
I _B	0.5	−0.5	A
P _T	5 (T _a =25°C)		W
	25 (T _c =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



Characteristic curves



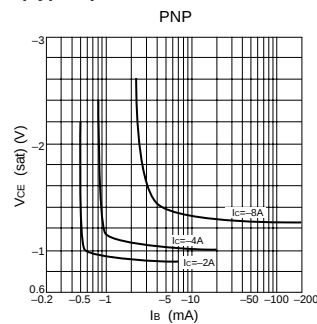
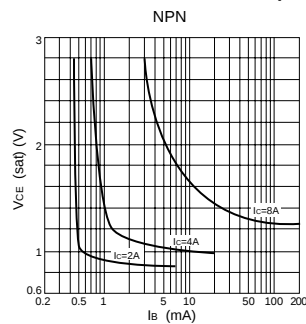
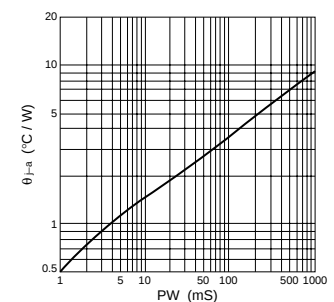
Electrical characteristics

(Ta=25°C)

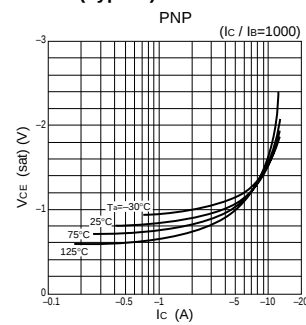
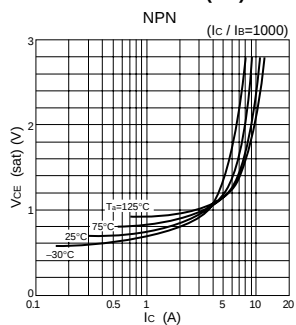
Symbol	NPN					PNP				
	Specification			Unit	Conditions	Specification			Unit	Conditions
	min	typ	max			min	typ	max		
ICBO			10	μA	$V_{CB}=60\text{V}$			-10	μA	$V_{CB}=-60\text{V}$
IEBO			10	μA	$V_{EB}=6\text{V}$			-10	mA	$V_{EB}=-6\text{V}$
VCEO	60			V	$I_C=25\text{mA}$	-60			V	$I_C=-25\text{mA}$
hFE	2000	5000	12000		$V_{CE}=4\text{V}, I_C=5\text{A}$	2000	5000	12000		$V_{CE}=-4\text{V}, I_C=-5\text{A}$
VCE(sat)			1.5	V	$I_C=5\text{A}, I_B=10\text{mA}$			-1.5	V	$I_C=-5\text{A}, I_B=-10\text{mA}$
VBE(sat)			2.0	V				-2.0	V	
VFEC				V				2.0	V	$I_{FEC}=5\text{A}$
t _{rr}				μs			1.0		μs	$I_{FEC}=\pm 0.5\text{A}$
t _{on}		0.8		μs	$V_{CC} \doteq 25\text{V},$ $I_C=5\text{A},$ $I_{B1}=-I_{B2}=10\text{mA}$		1.0		μs	$V_{CC} \doteq -25\text{V},$ $I_C=-5\text{A},$ $I_{B1}=-I_{B2}=-10\text{mA}$
t _{stg}		6.0		μs			1.4		μs	
t _f		2.0		μs			0.6		μs	
f _T		80		MHz	$V_{CE}=12\text{V}, I_E=-1\text{A}$		120		MHz	$V_{CE}=-12\text{V}, I_E=1\text{A}$
C _{ob}		100		pF	$V_{CB}=10\text{V}, f=1\text{MHz}$		150		pF	$V_{CB}=-10\text{V}, f=1\text{MHz}$

Characteristic curves

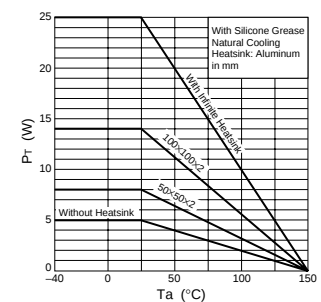
VCE(sat)-IB Characteristics (Typical)

 θ_{JA} -PW Characteristics

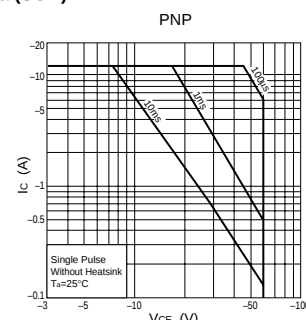
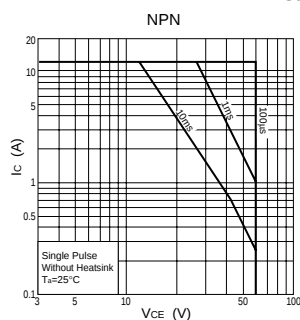
VCE(sat)-IC Temperature Characteristics (Typical)



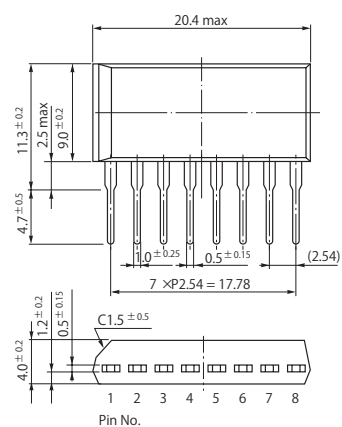
Pr-Ta Characteristics



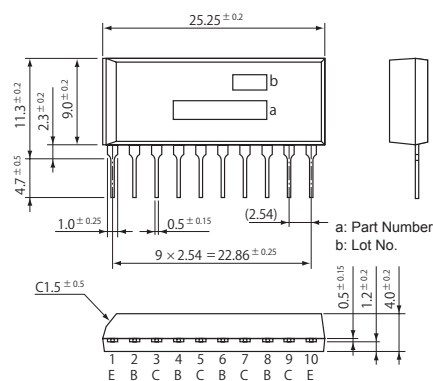
Safe Operating Area (SOA)



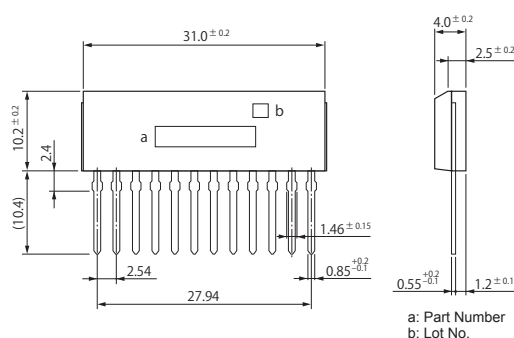
• SIP 8 (STA8Pin)



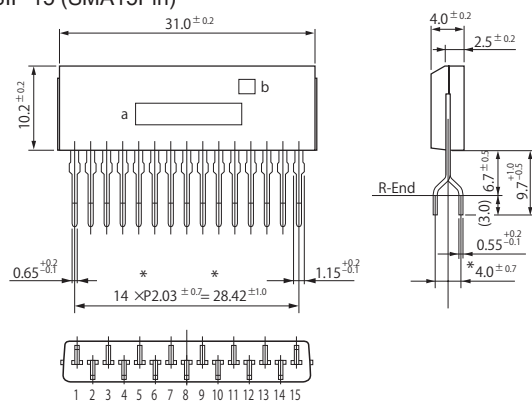
• SIP 10 (STA10Pin)



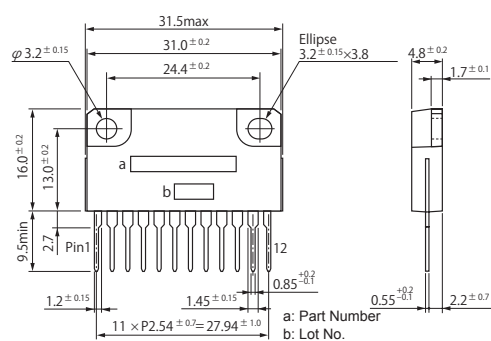
• SIP 12 (SMA12Pin)



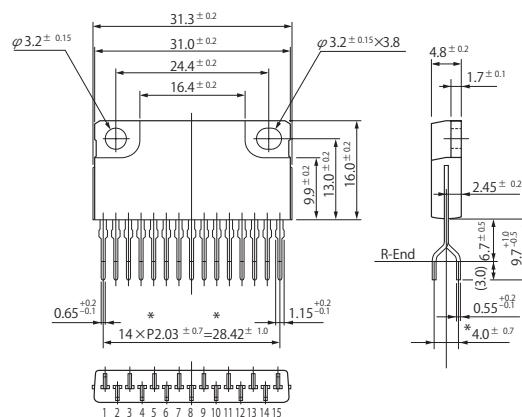
• SIP 15 (SMA15Pin)



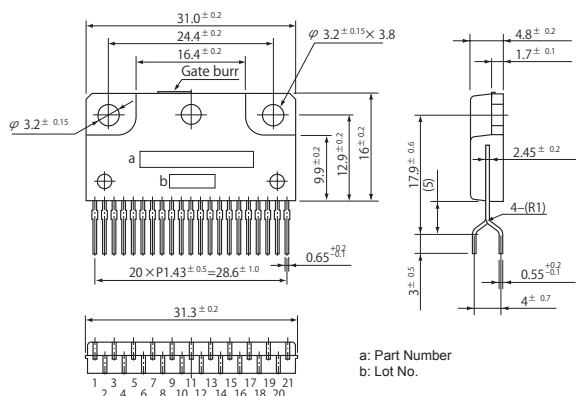
• SIP 12 with Fin (SLA12Pin)



• SIP 15 with Fin (SLA15Pin)



• SIP 21 with Fin (SLA21Pin)



(Unit:mm)