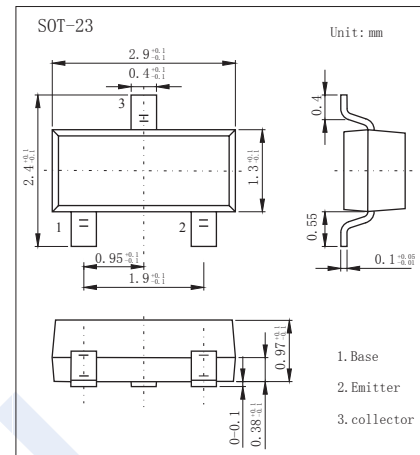
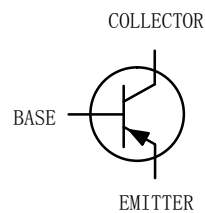


PNP Transistors

NSS1C200LT1G (KSS1C200LT1G)

■ Features

- Collector Current Capability $I_C = -2A$
- Collector Emitter Voltage $V_{CE0} = -100V$

■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-140	V
Collector - Emitter Voltage	V_{CEO}	-100	
Emitter - Base Voltage	V_{EBO}	-7	
Collector Current - Continuous	I_C	-2	A
Collector Current - Pulse	I_{CP}	-3	
Collector Power Dissipation (Note.1) (Note.2)	P_C	490	mW
		710	
Derate above $25^\circ C$ (Note.1) (Note.2)		3.7	$mW/^\circ C$
		4.3	
Thermal Resistance, Junction-to-Ambient (Note.1) (Note.2)	$R_{\theta JA}$	255	$^\circ C/W$
		176	
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature range	T_{stg}	-55 to 150	

Note.1: FR-4 @ 100 mm^2 , 1 oz. copper traces.

Note.2: FR-4 @ 500 mm^2 , 1 oz. copper traces.

PNP Transistors

NSS1C200LT1G (KSS1C200LT1G)

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = -100 \mu\text{A}$, $I_E = 0$	-140			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = -10 \text{ mA}$, $I_B = 0$	-100			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -100 \mu\text{A}$, $I_C = 0$	-7			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -140 \text{ V}$, $I_E = 0$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6 \text{ V}$, $I_C = 0$			-50	
Collector-emitter saturation voltage (Note.1)	$V_{CE(sat)}$	$I_C = -100 \text{ mA}$, $I_B = -10 \text{ mA}$			-0.04	V
		$I_C = -500 \text{ mA}$, $I_B = -50 \text{ mA}$			-0.08	
		$I_C = -1 \text{ A}$, $I_B = -100 \text{ mA}$			-0.115	
		$I_C = -2 \text{ A}$, $I_B = -200 \text{ mA}$			-0.25	
Base - emitter saturation voltage (Note.1)	$V_{BE(sat)}$	$I_C = -1 \text{ A}$, $I_B = -100 \text{ mA}$			-0.95	
Base - emitter voltage (Note.1)	$V_{BE(on)}$	$V_{CE} = -2 \text{ V}$, $I_C = -1 \text{ A}$			-0.85	
DC current gain (Note.1)	h_{FE}	$V_{CE} = -2 \text{ V}$, $I_C = -10 \text{ mA}$	150			
		$V_{CE} = -2 \text{ V}$, $I_C = -500 \text{ mA}$	120		360	
		$V_{CE} = -2 \text{ V}$, $I_C = -1 \text{ A}$	80			
		$V_{CE} = -2 \text{ V}$, $I_C = -2 \text{ A}$	50			
Collector input capacitance	C_{ibo}	$V_{EB} = -2 \text{ V}$, $f = 1 \text{ MHz}$		200		pF
Collector output capacitance	C_{obo}	$V_{CB} = -10 \text{ V}$, $f = 1 \text{ MHz}$		22		
Transition frequency	f_T	$V_{CE} = -5 \text{ V}$, $I_C = -100 \text{ mA}$, $f = 100 \text{ MHz}$		120		MHz

Note.1: Pulsed Condition: Pulse Width = 300 msec, Duty Cycle $\leq 2\%$.

■ Marking

Marking	VL *
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■ Typical Characteristics

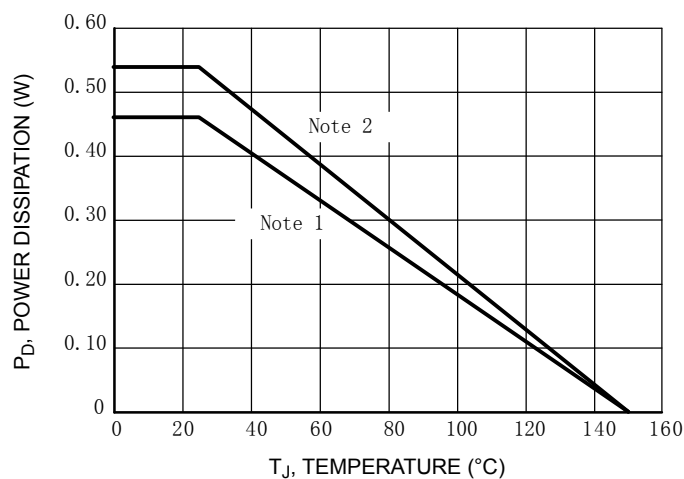


Figure 1. Power Derating

PNP Transistors

NSS1C200LT1G (KSS1C200LT1G)

■ Typical Characteristics

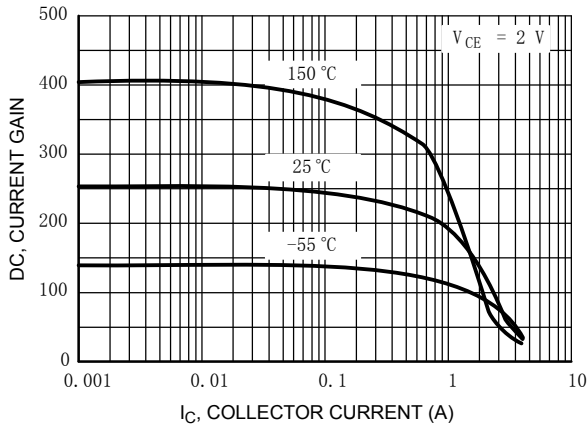


Figure 2. DC Current Gain

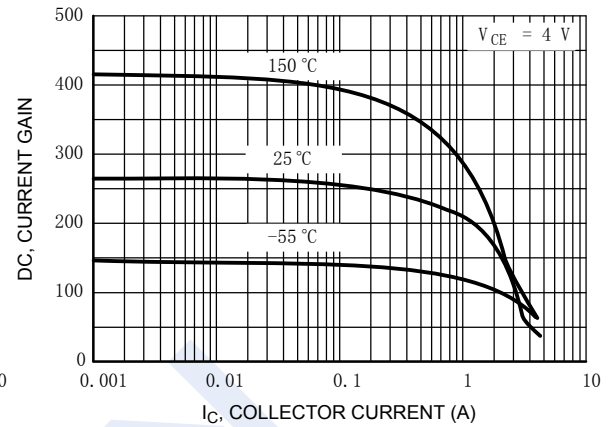


Figure 3. DC Current Gain

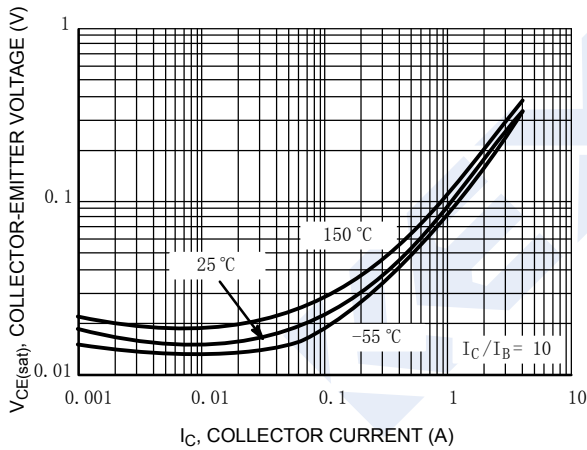


Figure 4. Collector-Emitter Saturation Voltage

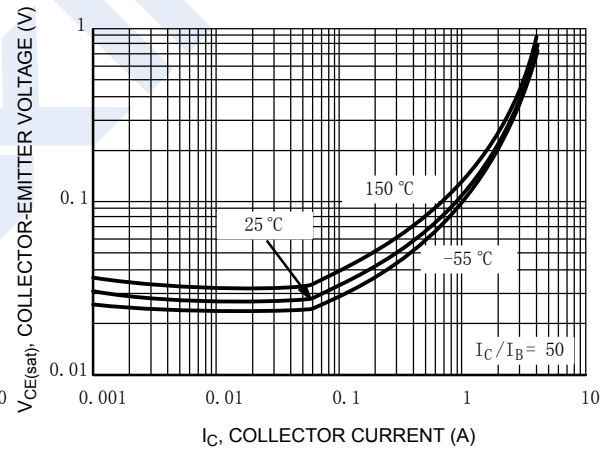


Figure 5. Collector-Emitter Saturation Voltage

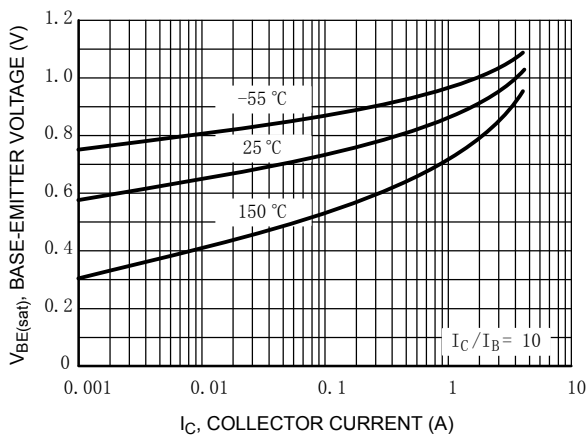


Figure 6. Base-Emitter Saturation Voltage

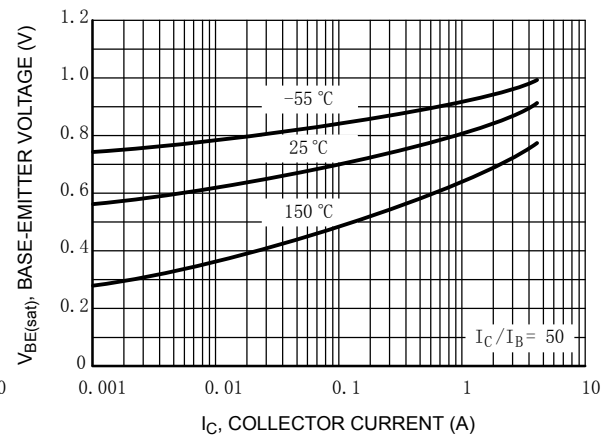


Figure 7. Base-Emitter Saturation Voltage

PNP Transistors

NSS1C200LT1G (KSS1C200LT1G)

■ Typical Characteristics

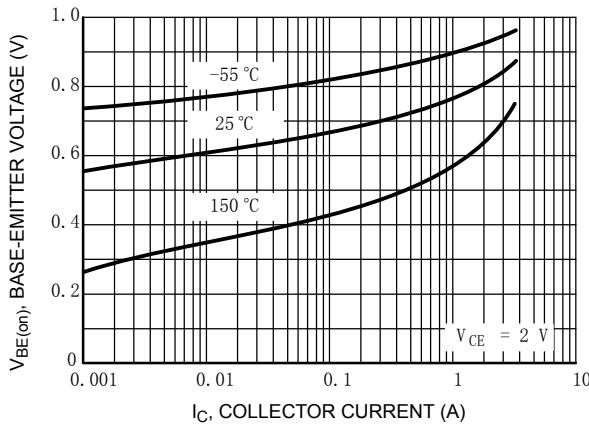


Figure 8. Base-Emitter Saturation Voltage

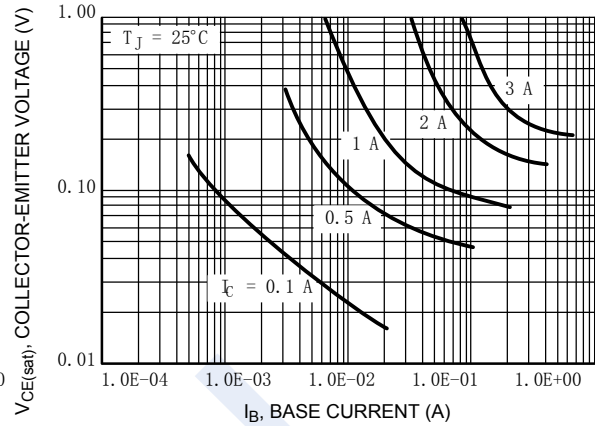


Figure 9. Collector Saturation Region

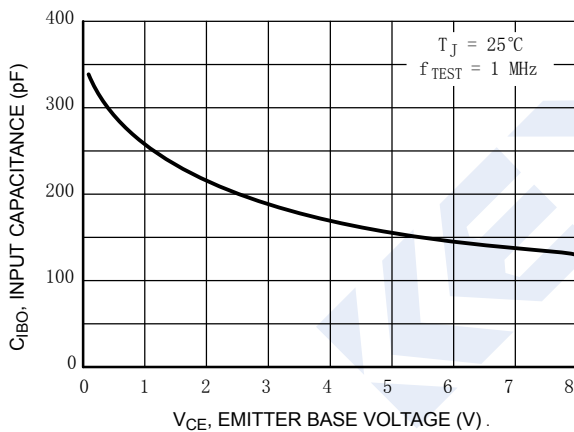


Figure 10. Input Capacitance

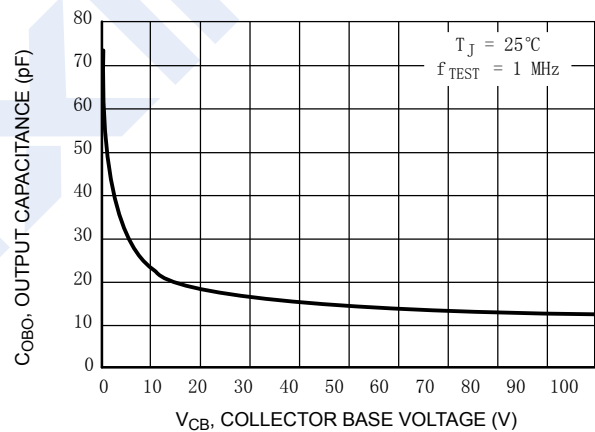


Figure 11. Output Capacitance

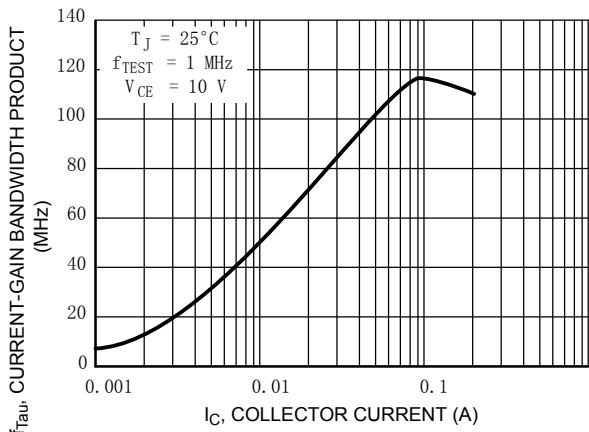


Figure 12. Current-Gain Bandwidth Product

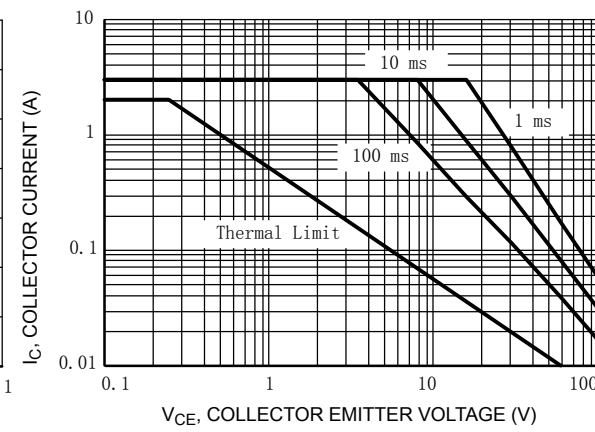


Figure 13.