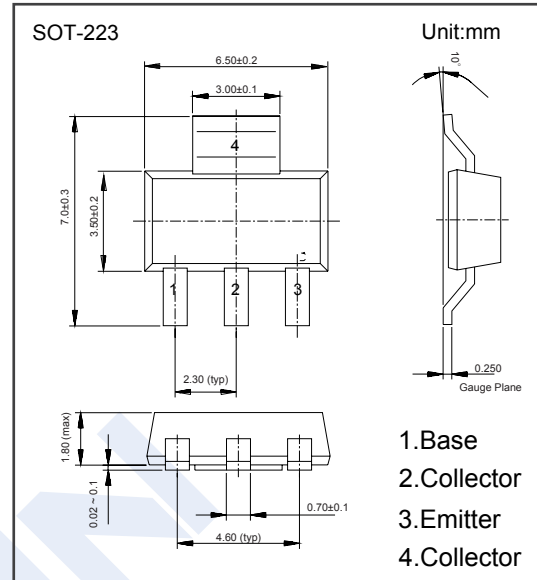


PNP Transistors

FZT949 (KZT949)

■ Features

- Collector Current Capability $I_C = -5.5A$
- Collector Emitter Voltage $V_{CE0} = -30V$
- Complementary to FZT849

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-50	V
Collector - Emitter Voltage	V_{CE0}	-30	
Emitter - Base Voltage	V_{EB0}	-6	
Collector Current - Continuous	I_C	-5.5	A
Collector Current - Pulse	I_{CP}	-20	
Collector Power Dissipation	P_C	3	W
Junction Temperature	T_J	150	$^{\circ}C$
Storage Temperature range	T_{stg}	-55 to 150	

PNP Transistors

FZT949 (KZT949)

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

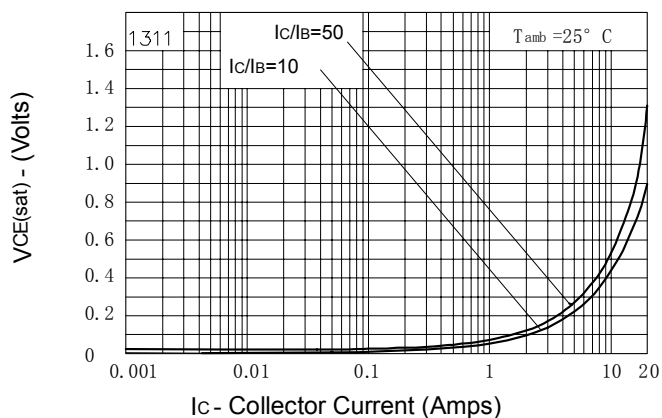
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_c = -100\ \mu\text{A}$, $I_E = 0$	-50			V
Collector- emitter breakdown voltage	V_{CER}	$I_c = -1\ \mu\text{A}$, $R_B \leq 1\text{K}\Omega$	-50			
	V_{CEO}	$I_c = -10\ \text{mA}$, $I_B = 0$	-30			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100\ \mu\text{A}$, $I_c = 0$	-6			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -40\ \text{V}$, $I_E = 0$			-50	nA
		$V_{CB} = -40\ \text{V}$, $I_E = 0$, $T_a = 100^\circ\text{C}$			-1	μA
Collector-emitter cut-off current ($R \leq 1\text{K}\Omega$)	I_{CER}	$V_{CB} = -40\ \text{V}$, $I_E = 0$			-50	nA
		$V_{CB} = -40\ \text{V}$, $I_E = 0$, $T_a = 100^\circ\text{C}$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6\text{V}$, $I_c = 0$			-100	nA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = -500\text{mA}$, $I_B = -10\text{mA}$ (Note.1)			-75	mV
		$I_c = -1\ \text{A}$, $I_B = -20\text{mA}$ (Note.1)			-140	
		$I_c = -2\ \text{A}$, $I_B = -200\text{mA}$ (Note.1)			-270	
		$I_c = -5.5\ \text{A}$, $I_B = -500\text{mA}$ (Note.1)			-440	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = -5.5\ \text{A}$, $I_B = -500\text{mA}$ (Note.1)			-1.25	V
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	$V_{CE} = -1\text{V}$, $I_c = -5.5\ \text{A}$ (Note.1)			-1.06	
DC current gain (Note.1)	$h_{FE(1)}$	$V_{CE} = -1\text{V}$, $I_c = -10\text{mA}$	100			
	$h_{FE(2)}$	$V_{CE} = -1\text{V}$, $I_c = -1\text{A}$	100		300	
	$h_{FE(3)}$	$V_{CE} = -1\text{V}$, $I_c = -5\ \text{A}$	75			
	$h_{FE(4)}$	$V_{CE} = -2\text{V}$, $I_c = -20\ \text{A}$		35		
Switching Times	t_{on}	$I_c = -4\ \text{A}$, $I_{B1} = -400\text{mA}$		120		ns
	t_{off}	$I_{B2} = 400\text{mA}$, $V_{CC} = -10\text{V}$		130		
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $f = 1\text{MHz}$		122		pF
Transition frequency	f_T	$V_{CE} = -10\text{V}$, $I_c = -100\text{mA}$, $f = 50\text{MHz}$		100		MHz

Note.1: Pulse width=300 μs . Duty cycle $\leq 2\%$

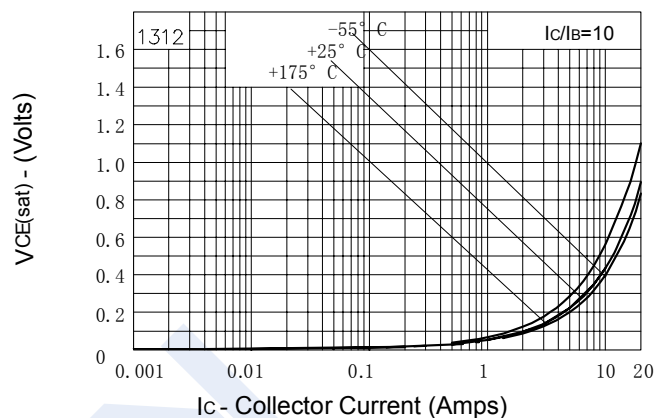
PNP Transistors

FZT949 (KZT949)

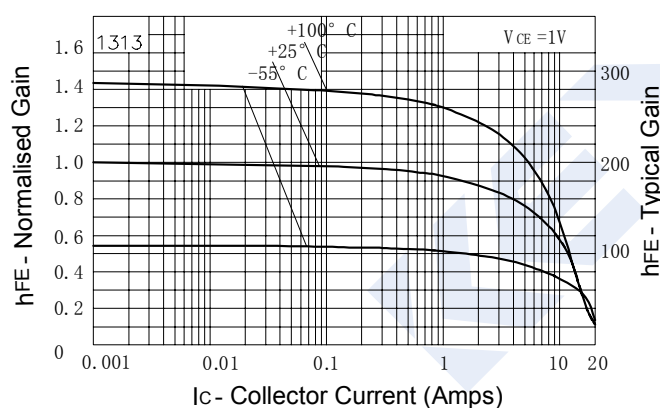
■ Typical Characteristics



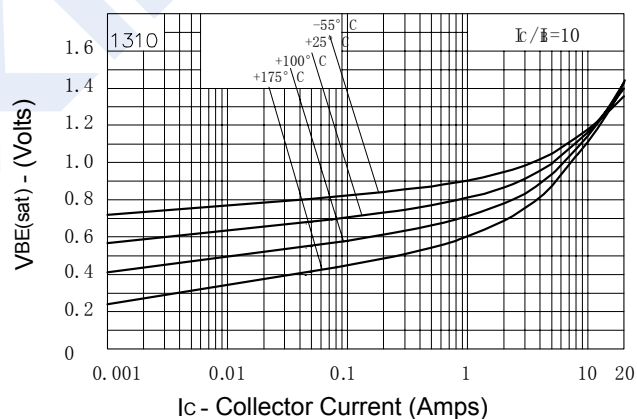
VCE(sat) v IC



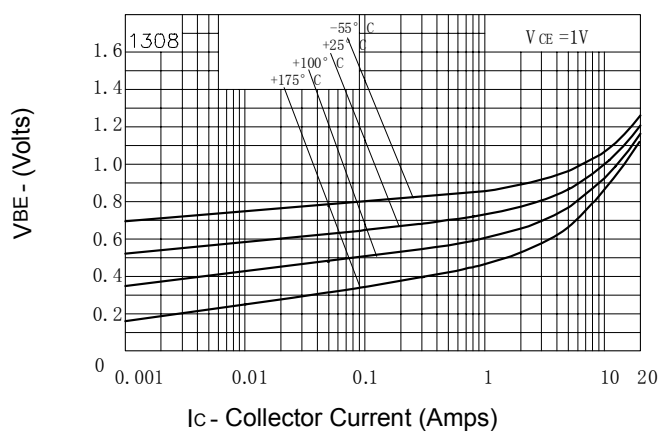
VCE(sat) v IC



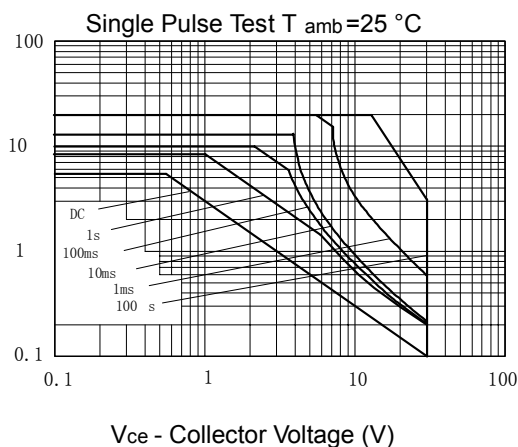
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area