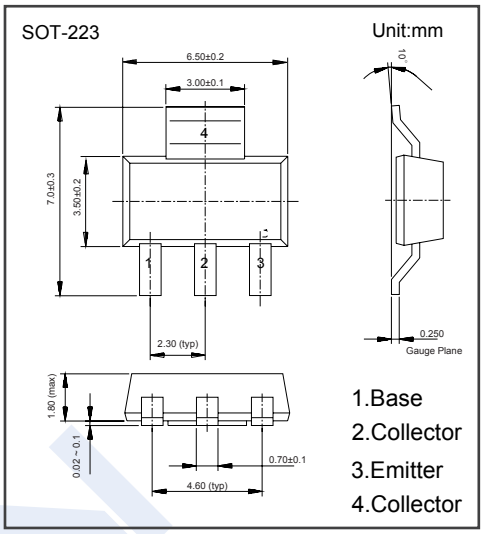
PNP Transistors

FZT953 (KZT953)



■ Features

- Collector Current Capability I_C=-5A
- Collector Emitter Voltage V_{CEO}=-100V
- Complementary to FZT853

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-140	V
Collector - Emitter Voltage	V_{CEO}	-100	
Emitter - Base Voltage	V_{EBO}	-6	
Collector Current - Continuous	I_C	-5	A
Collector Current - Pulse	I_{CP}	-10	
Collector Power Dissipation	P_C	3	W
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= -100 μA， I_E=0	-140			V
Collector- emitter breakdown voltage	V_{CER}	I_C= -1uA，R_B≤1KΩ	-140			V
	V_{CEO}	I_C= -10 mA， I_B=0	-100			V
Emitter - base breakdown voltage	V_{EBO}	I_E= -100μA， I_C=0	-6			V
Collector-base cut-off current	I_{CBO}	V_{CB}= -100 V , I_E=0			-50	nA
		V_{CB}= -100 V , I_E=0 ,Ta = 100℃			-1	uA
Collector-emitter cut-off current (R≤1KΩ)	I_{CER}	V_{CB}= -100 V , I_E=0			-50	nA
		V_{CB}= -100 V , I_E=0 ,Ta = 100℃			-1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= -6V , I_C=0			-10	nA
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B=-10mA (Note.1)			-50	mV
		I_C=-1 A, I_B=-100mA (Note.1)			-115	mV
		I_C=-2 A, I_B= -200mA (Note.1)			-220	mV
		I_C=-4 A, I_B=-400mA (Note.1)			-420	mV
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=-4 A, I_B=-400mA (Note.1)			-1.17	V
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	V_{CE}= -1V, I_C= -4A (Note.1)			-1.16	V
DC current gain (Note.1)	$h_{FE(1)}$	V_{CE}= -1V, I_C= -10mA	100			
	$h_{FE(2)}$	V_{CE}= -1V, I_C= -1A	100		300	
	$h_{FE(3)}$	V_{CE}= -1V, I_C= -3 A	50			
	$h_{FE(4)}$	V_{CE}= -1V, I_C= -4 A	30			
	$h_{FE(5)}$	V_{CE}= -1V, I_C= -10 A		15		
Switching Times	t_{on}	I_C=-2A, I_{B1}=-200mA I_{B2}=200mA, V_{CC}=-10V		110		ns
	t_{off}			460		ns
Collector output capacitance	C_{ob}	V_{CB}= -10V, f=1MHz (Note.1)		65		pF
Transition frequency	f_T	V_{CE}= -10V, I_C= -100mA,f=50MHz		125		MHz

Note.1: Pulse width=300 us. Duty cycle ≤ 2%

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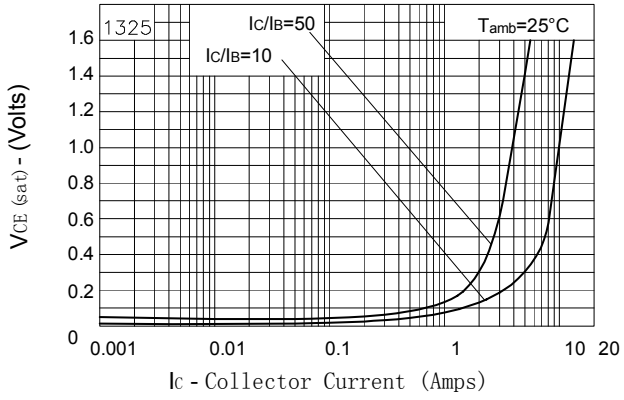
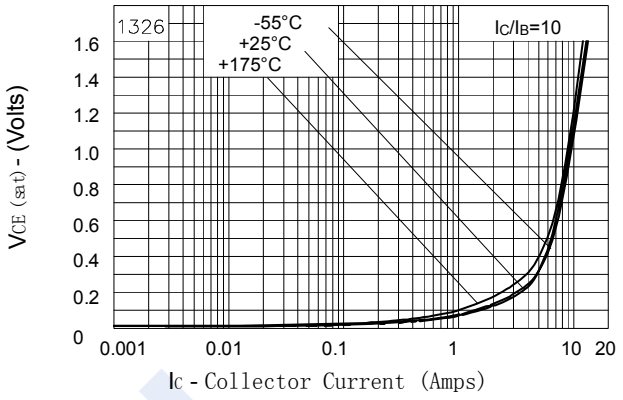
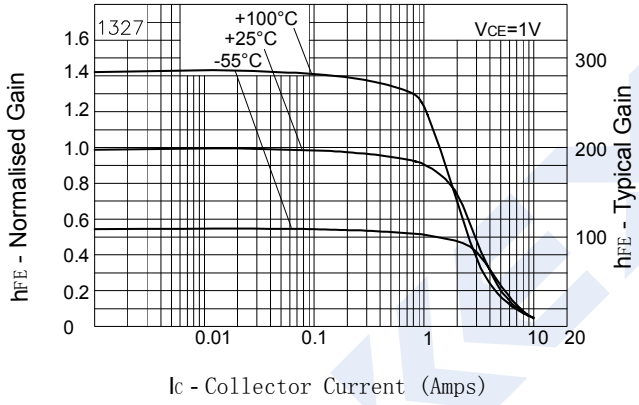
■ Typical Characterisitics



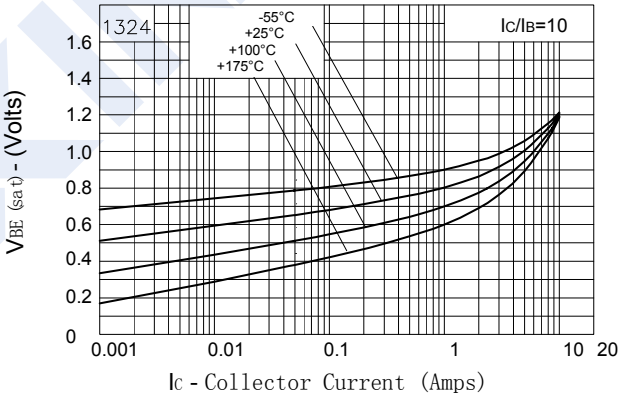
VCE(sat) v IC



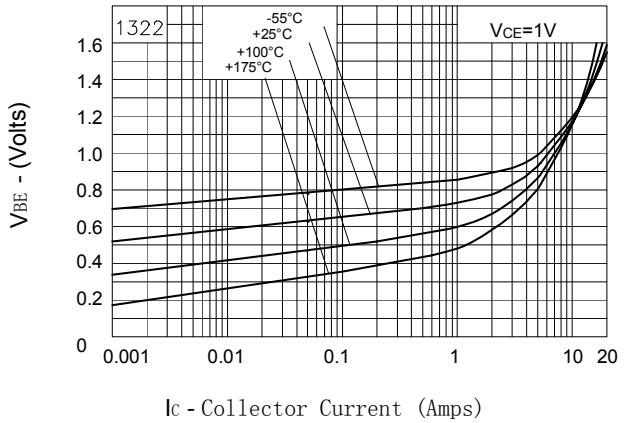
VCE(sat) v IC



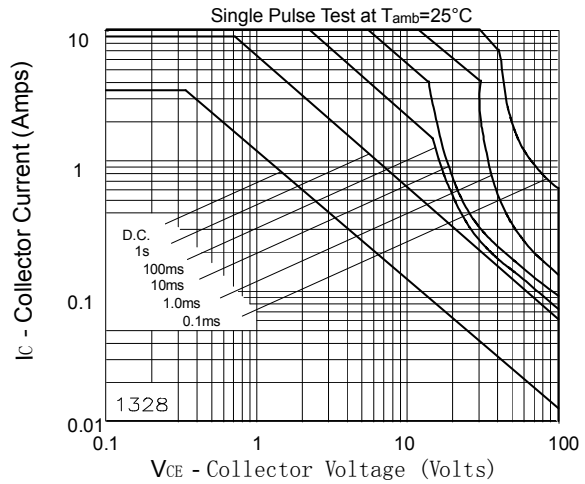
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area