

## PNP Transistors

## FZT790A (KZT790A)

## ■ Features

- Collector Current Capability  $I_C = -3A$
- Collector Emitter Voltage  $V_{CE0} = -40V$
- Complementary to FZT690B

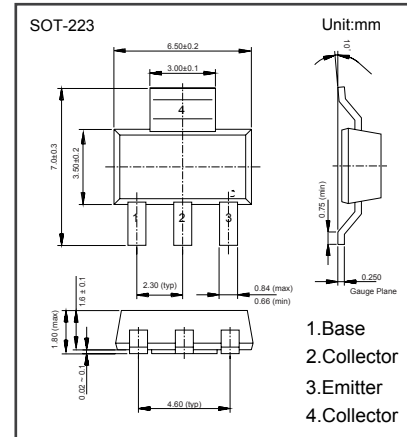
■ Absolute Maximum Ratings  $T_a = 25^\circ C$ 

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	-50	V
Collector - Emitter Voltage	$V_{CEO}$	-40	
Emitter - Base Voltage	$V_{EBO}$	-5	
Collector Current - Continuous	$I_C$	-3	A
Collector Current - Pluse	$I_{CP}$	-6	
Collector Power Dissipation	$P_C$	2	W
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature range	$T_{stg}$	-55 to 150	

■ Electrical Characteristics  $T_a = 25^\circ C$ 

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CBO}$	$I_C = -100 \mu A, I_E = 0$	-50			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_C = -10 mA, I_B = 0$	-40			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = -100 \mu A, I_C = 0$	-5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = -30 V, I_E = 0$			-0.1	$\mu A$
		$V_{CB} = -30 V, I_E = 0, T_a = 100^\circ C$			-10	
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -4V, I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500 mA, I_B = -5mA$			-0.25	V
		$I_C = -1 A, I_B = -10mA$			-0.45	
		$I_C = -2 A, I_B = -50mA$			-0.75	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1 A, I_B = -10mA$			-1	
Base - emitter turn-on voltage	$V_{BE(on)}$	$V_{CE} = -2V, I_C = -1 A$		-0.75		
DC current gain	$h_{FE}$	$V_{CE} = -2V, I_C = -10mA$	300		800	
		$V_{CE} = -2V, I_C = -500mA$	250			
		$V_{CE} = -2V, I_C = -1 A$	200			
		$V_{CE} = -2V, I_C = -2 A$	150			
Switching Turn-on Times	$t_{on}$	$I_C = -500mA, I_{B1} = -50mA,$ $I_{B2} = -50mA, V_{CC} = -10V$		35		ns
Switching Turn-off Times	$t_{off}$			600		
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, f = 1MHz$		24		pF
Transition frequency	$f_T$	$V_{CE} = -5V, I_C = -50mA, f = 50MHz$	100			MHz

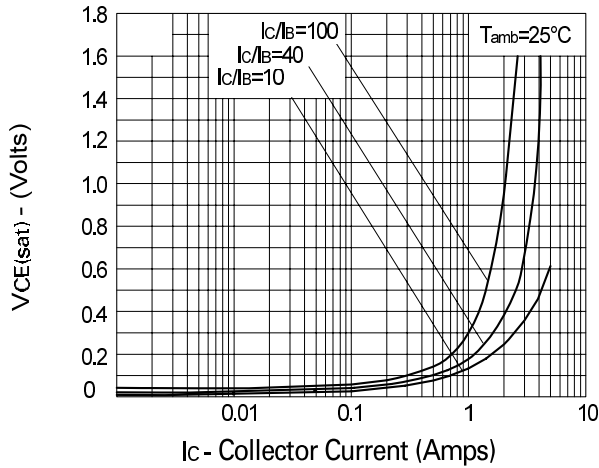
Note. Pulse width=300us. Duty cycle  $\leq 2\%$



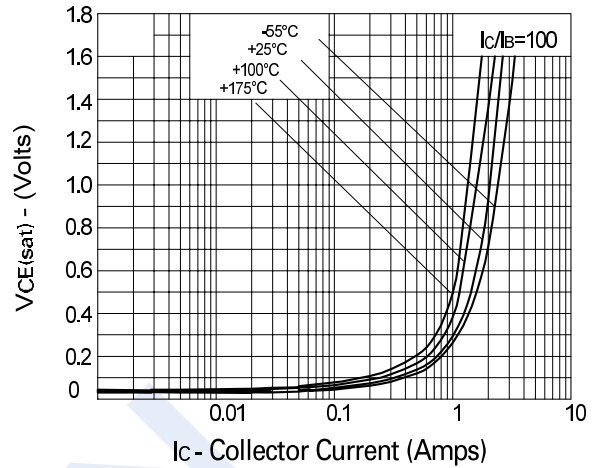
# PNP Transistors

## FZT790A (KZT790A)

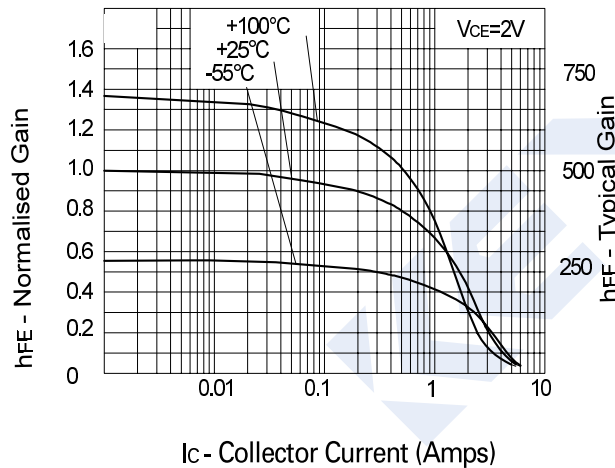
### Typical Characteristics



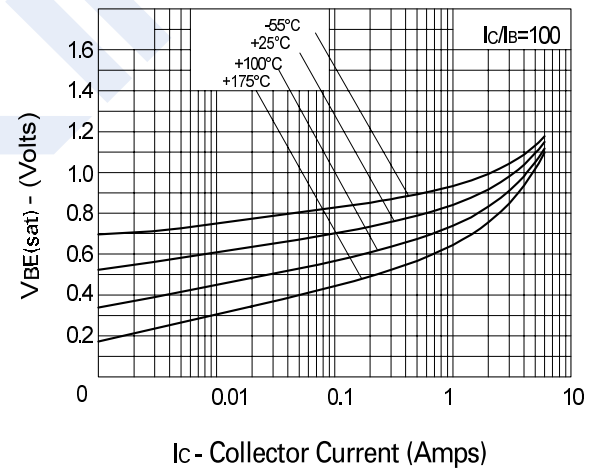
**$V_{CE(sat)}$  v  $I_C$**



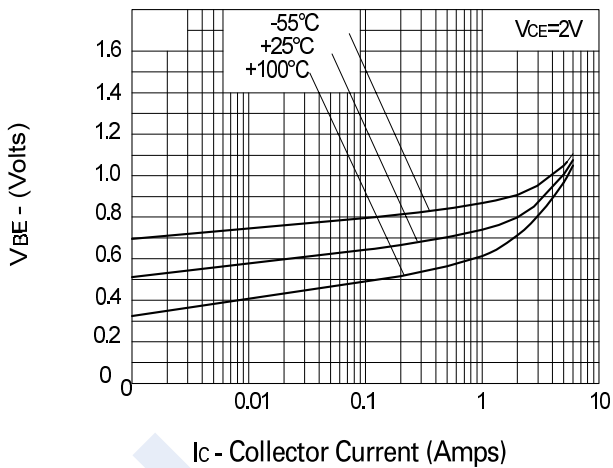
**$V_{CE(sat)}$  v  $I_C$**



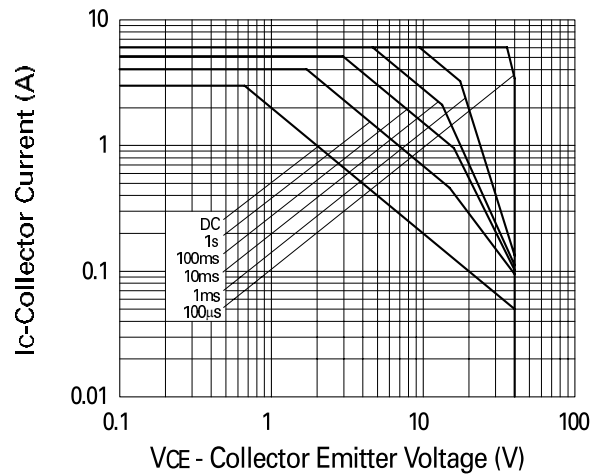
**$h_{FE}$  v  $I_C$**



**$V_{BE(sat)}$  v  $I_C$**



**$V_{BE(on)}$  v  $I_C$**



**Safe Operating Area**