

PNP Transistors

FZT790A (KZT790A)

■ Features

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

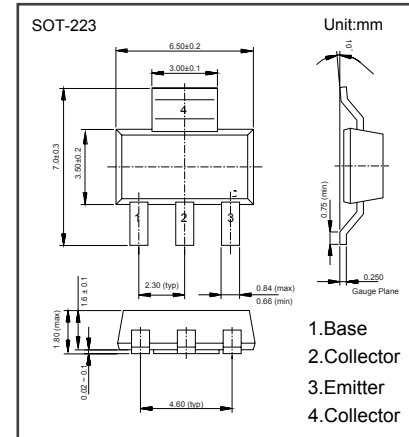
■ Absolute Maximum Ratings $T_a = 25^\circ C$

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	uA
		$V_{CB} = -30 V, I_E = 0, T_a = 100^\circ C$			-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

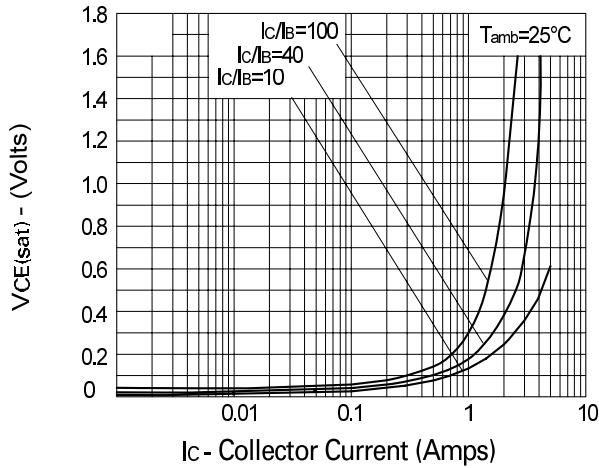
Note.Pulse width=300us. Duty cycle $\leq 2\%$



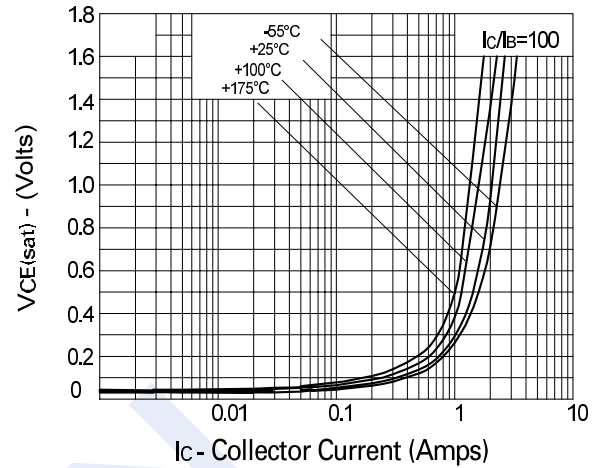
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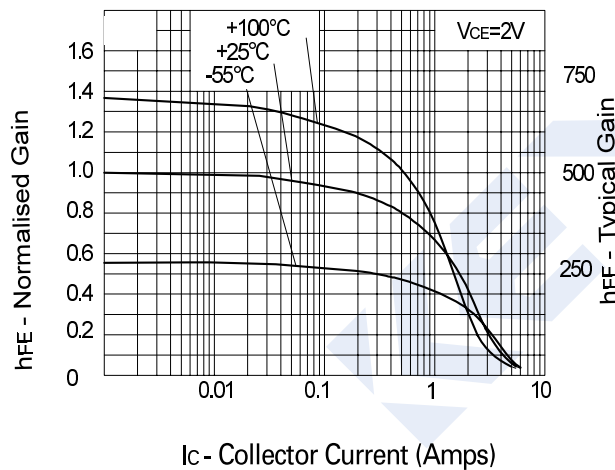
Typical Characteristics



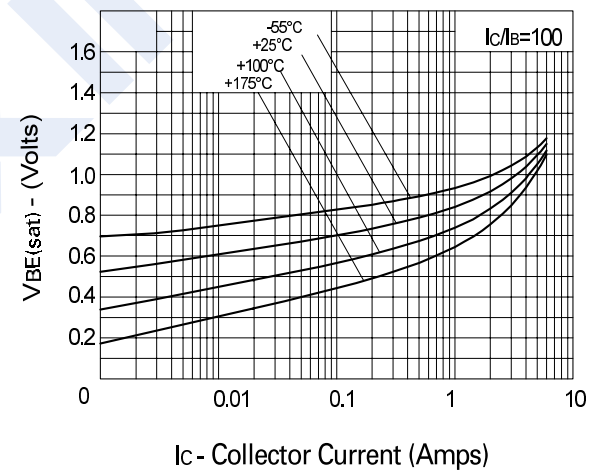
$V_{CE(sat)}$ v I_C



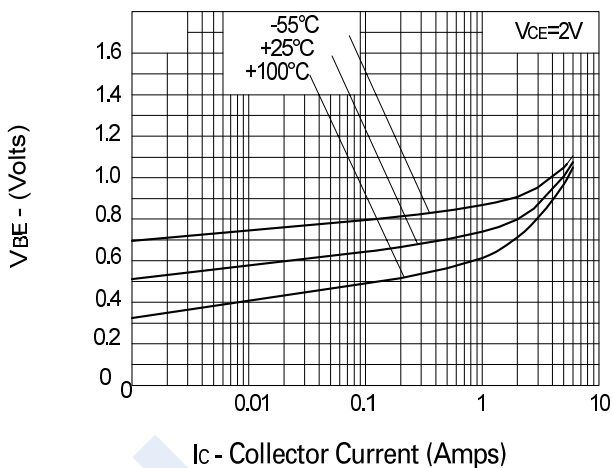
$V_{CE(sat)}$ v I_C



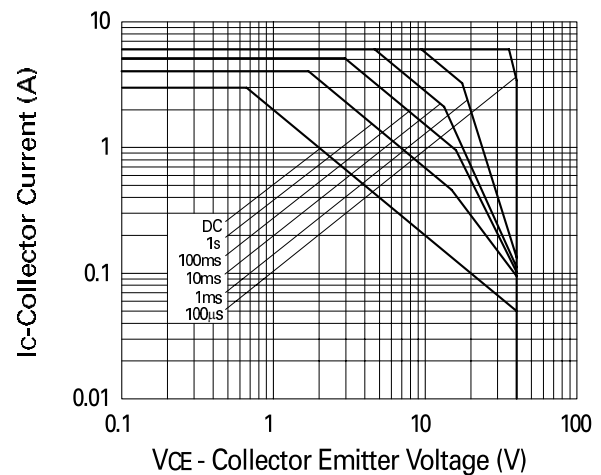
h_{FE} v I_C



$V_{BE(sat)}$ v I_C



$V_{BE(on)}$ v I_C



Safe Operating Area