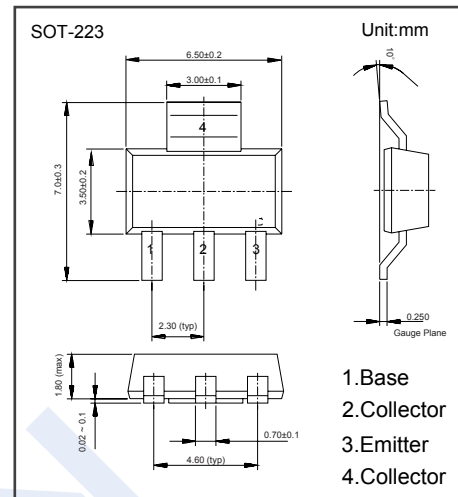


## PNP Transistors

### FZT789A (KZT789A)

#### ■ Features

- Low equivalent on-resistance;  $R_{CE(sat)}$  93m $\Omega$  at 3A.
- Gain of 300 at  $I_C=2$  Amps and Very low saturation voltage.



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	-25	V
Collector - Emitter Voltage	$V_{CEO}$	-25	
Emitter - Base Voltage	$V_{EBO}$	-5	
Collector Current - Continuous	$I_C$	-3	A
Peak Pulse Current	$I_{CM}$	-6	
Collector Power Dissipation	$P_C$	2	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature range	$T_{stg}$	-55 to 150	

**FZT789A (KZT789A)**■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Breakdown Voltages	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}$	-25	-40		V
Breakdown Voltages *	$V_{(BR)CEO}$	$I_C = -10\text{mA}$	-25	-35		V
Breakdown Voltages	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}$	-5	-8.5		V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -15\text{V}$ $V_{CB} = -15\text{V}, T_a = 100^\circ\text{C}$			-0.1 10	$\mu\text{A}$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = -4\text{V}$			-0.1	$\mu\text{A}$
Saturation Voltages *	$V_{CE(sat)}$	$I_C = -1\text{A}, I_B = -10\text{mA}$ $I_C = -2\text{A}, I_B = -20\text{mA}$ $I_C = -3\text{A}, I_B = -100\text{mA}$		-0.15 -0.30 -0.30	-0.25 -0.45 -0.50	V
Saturation Voltages *	$V_{BE(sat)}$	$I_C = -1\text{A}, I_B = -10\text{mA}$		-0.8	-1.0	V
Base-Emitter Turn-On Voltage *	$V_{BE(on)}$	$I_C = -1\text{A}, V_{CE} = -2\text{V}$		-0.8		V
Static Forward Current Transfer Ratio	$h_{FE}$	$I_C = -10\text{mA}, V_{CE} = -2\text{V}$	300		800	
		$I_C = -1\text{A}, V_{CE} = -2\text{V}^*$	250			
		$I_C = -2\text{A}, V_{CE} = -2\text{V}^*$	200			
		$I_C = -6\text{A}, V_{CE} = -2\text{V}^*$	100			
Transitional frequency	$f_T$	$I_C = -50\text{mA}, V_{CE} = -5\text{V}, f = 50\text{MHz}$	100			MHz
Input capacitance	$C_{ibo}$	$V_{EB} = -0.5\text{V}, f = 1\text{MHz}$		225		pF
Output capacitance	$C_{obo}$	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		25		pF
Turn-on time	$t_{(on)}$	$I_C = -500\text{mA}, V_{CC} = -10\text{V}$		35		ns
Turn-off time	$t_{(off)}$	$I_{B1} = I_{B2} = -50\text{mA}$		400		ns

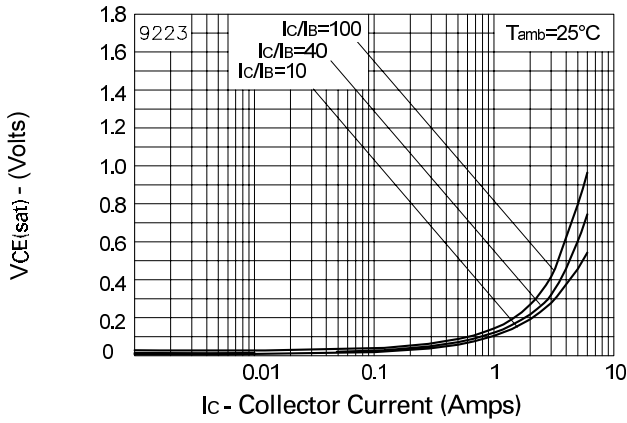
\* Pulse test:  $t_p = 300\ \mu\text{s}; d \leq 0.02$ .

## ■ Marking

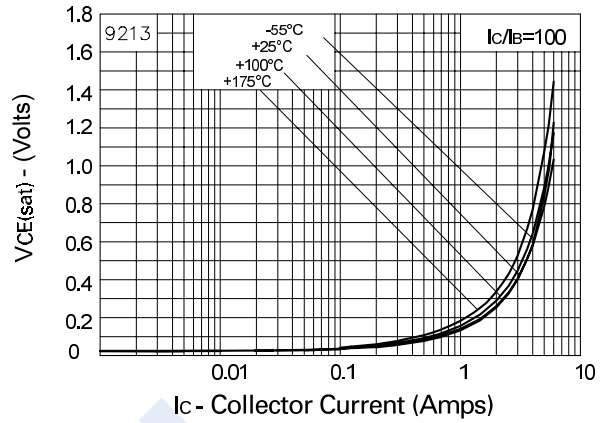
Marking	FZT789A
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### FZT789A (KZT789A)

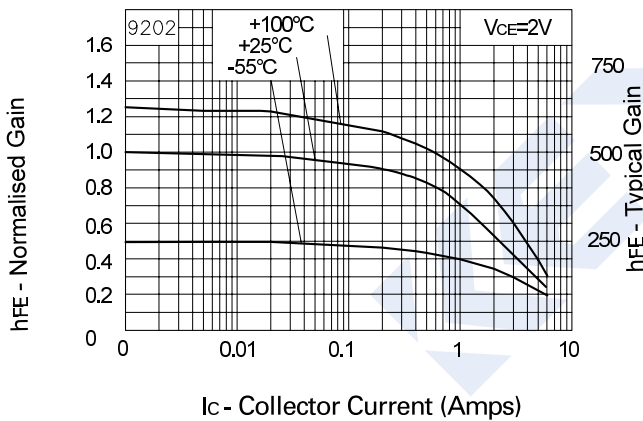
■ Typical Characteristics



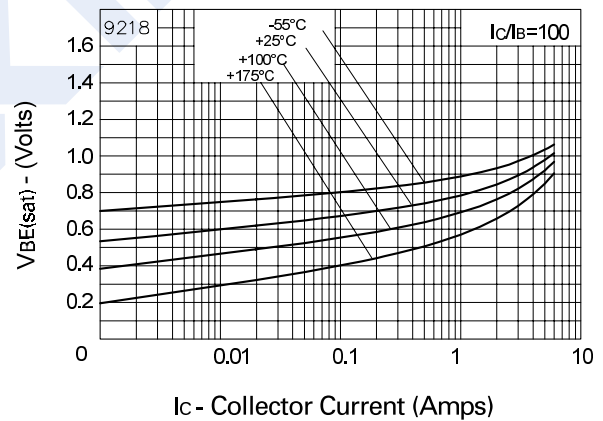
VCE(sat) v IC



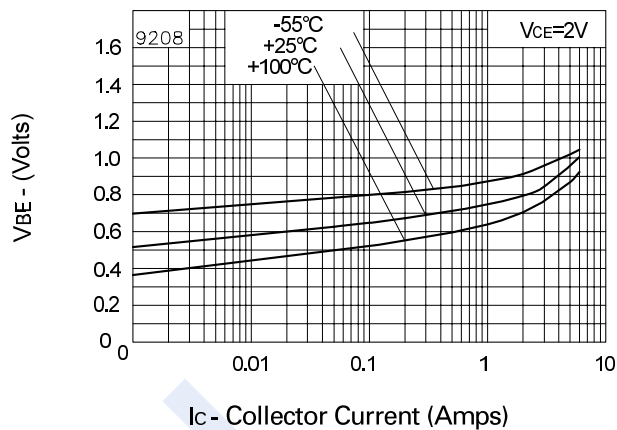
VCE(sat) v IC



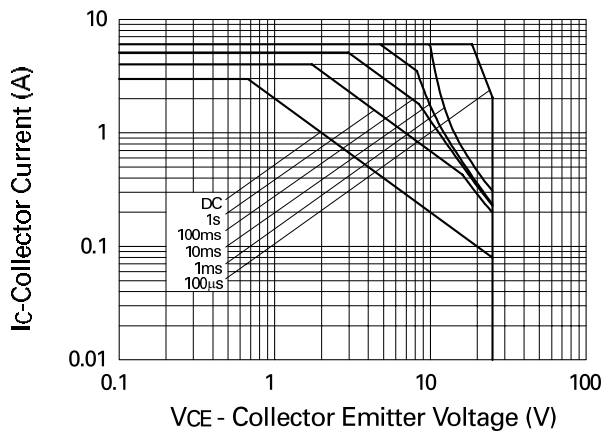
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area