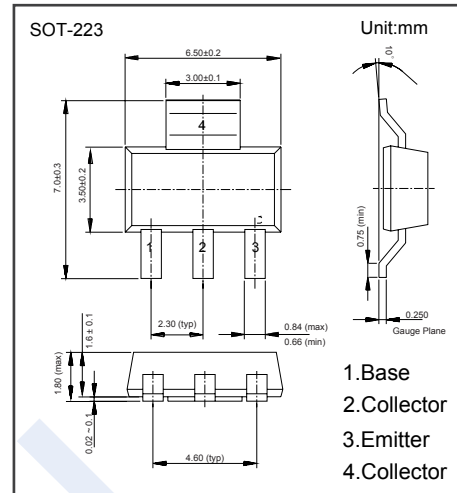


## NPN Transistors

### FZT1053A (KZT1053A)

#### ■ Features

- Collector Current Capability  $I_C=4.5A$
- Collector Emitter Voltage  $V_{CE0}=75V$
- Low Saturation Voltage



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	150	V
Collector - Emitter Voltage	$V_{CE0}$	75	
Emitter - Base Voltage	$V_{EB0}$	7.5	
Collector Current - Continuous	$I_C$	4.5	A
Collector Current - Pulse	$I_{CP}$	10	
Base Current	$I_B$	500	mA
Collector Power Dissipation	$P_C$	2.5	W
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55 to 150	

## NPN Transistors

### FZT1053A (KZT1053A)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>c</sub> = 100 μA, I <sub>E</sub> = 0	150			V
Collector- emitter breakdown voltage	V <sub>CES</sub>	I <sub>c</sub> = 100 uA, I <sub>B</sub> = 0	150			
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>c</sub> = 10 mA, I <sub>B</sub> = 0	75			
Collector- emitter breakdown voltage	V <sub>CEV</sub>	I <sub>c</sub> = 100 uA, V <sub>EB</sub> = 1V	150			
Emitter - base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = 100 uA, I <sub>c</sub> = 0	7.5			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 120 V , I <sub>E</sub> = 0			10	nA
Collector- emitter cut-off current	I <sub>CES</sub>	V <sub>CES</sub> = 120 V , I <sub>E</sub> = 0			10	
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 4V , I <sub>c</sub> =0			10	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =200 mA, I <sub>B</sub> =20mA			30	mV
		I <sub>c</sub> =500 mA, I <sub>B</sub> =20mA			75	
		I <sub>c</sub> =1 A, I <sub>B</sub> =10mA			200	
		I <sub>c</sub> =2 A, I <sub>B</sub> =100mA			210	
		I <sub>c</sub> =4.5 A, I <sub>B</sub> =200mA			440	
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =3 A, I <sub>B</sub> =100mA			1000	
Base - emitter turn-on voltage	V <sub>BE(on)</sub>	V <sub>CE</sub> = 2V, I <sub>c</sub> = 3A			950	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 2V, I <sub>c</sub> = 10mA	270			
		V <sub>CE</sub> = 2V, I <sub>c</sub> = 500mA	300		1200	
		V <sub>CE</sub> = 2V, I <sub>c</sub> = 1A	300			
		V <sub>CE</sub> = 2V, I <sub>c</sub> = 4.5A	40			
		V <sub>CE</sub> = 2V, I <sub>c</sub> = 10A		20		
Turn-on time	t <sub>on</sub>	I <sub>c</sub> =2A, I <sub>B1</sub> =I <sub>B2</sub> =±20mA, V <sub>CC</sub> =50V		162		ns
Turn-off time	t <sub>off</sub>			900		
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, f=1MHz			30	pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>c</sub> = 50mA, f=100MHz		140		MHz

■ Marking

Marking	1053A K****
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## NPN Transistors FZT1053A (KZT1053A)

■ Typical Characteristics

