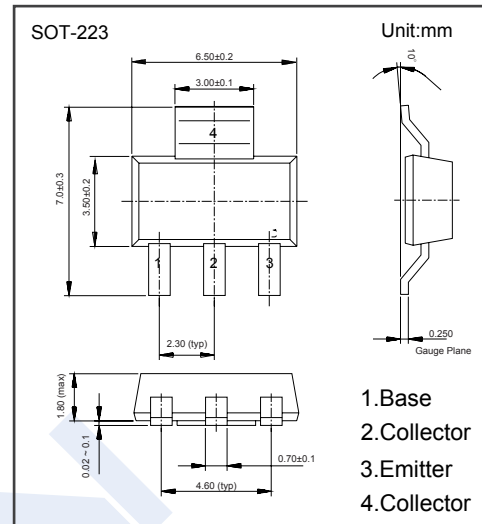


NPN Transistors

FZT1048A (KZT1048A)

■ Features

- Collector Current Capability $I_C=5A$
- Collector Emitter Voltage $V_{CE0}=17.5V$
- Low Saturation Voltage



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	50	V
Collector - Emitter Voltage	V_{CE0}	17.5	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_C	5	A
Collector Current - Pulse	I_{CP}	20	
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

FZT1048A (KZT1048A)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _C = 100 μA, I _E = 0	50			V
Collector- emitter breakdown voltage	V _{CES}	I _C = 100 μA, I _B = 0	50			
Collector- emitter breakdown voltage	V _{CEO}	I _C = 10 mA, I _B = 0	17.5			
Collector- emitter breakdown voltage	V _{CEV}	I _C = 100 μA, V _{EB} = 1V	50			
Emitter - base breakdown voltage	V _{EBO}	I _E = 100 μA, I _C = 0	5			
Collector-base cut-off current	I _{CBO}	V _{CB} = 35 V, I _E = 0			10	nA
Collector-emitter cut-off current	I _{CES}	V _{CE} = 35 V, I _B = 0			10	
Emitter cut-off current	I _{EBO}	V _{EB} = 4V, I _C =0			10	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500mA, I _B =10mA			45	mV
		I _C =1 A, I _B =10mA			75	
		I _C =3 A, I _B =15mA			215	
		I _C =5 A, I _B =25mA			350	
Base - emitter saturation voltage	V _{BE(sat)}	I _C =5 A, I _B =25mA			1	V
Base - emitter turn-on voltage	V _{BE(on)}	V _{CE} = 2V, I _C = 5A			0.97	
DC current gain	h _{FE(1)}	V _{CE} = 2V, I _C = 10mA	280			
	h _{FE(2)}	V _{CE} = 2V, I _C = 500mA	300			
	h _{FE(3)}	V _{CE} = 2V, I _C = 1 A	300		1200	
	h _{FE(4)}	V _{CE} = 2V, I _C = 5 A	180			
	h _{FE(5)}	V _{CE} = 2V, I _C = 20 A	50			
Switching Times	t _{on}	I _C =4 A, V _{CC} =10V, I _B =40mA		120		ns
	t _{off}			310		
Collector output capacitance	C _{ob}	V _{CB} = 10V, f=1MHz			80	pF
Transition frequency	f _T	V _{CE} = 10V, I _C = 50mA, f=50MHz		150		MHz

NPN Transistors

FZT1048A (KZT1048A)

■ Typical Characteristics

