

PNP Transistors

FZT591 (KZT591)

■ Features

- Collector Current Capability $I_C = -1A$
- Collector Emitter Voltage $V_{CE0} = -60V$
- Complementary to FZT491

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-80	V
Collector - Emitter Voltage	V_{CEO}	-60	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-1	A
Collector Current - Pulse	I_{CP}	-2	
Base Current	I_B	-200	mA
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}	$I_C = -100 \mu A, I_E = 0$	-80			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -10 mA, I_B = 0$	-60			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu A, I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -60 V, I_E = 0$			-0.1	μA
Collector-emitter cut-off current	I_{CES}	$V_{CES} = -60V, I_B = 0$			-0.1	
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$ (Note.1)			-0.3	V
		$I_C = -1 A, I_B = -100mA$ (Note.1)			-0.6	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1 A, I_B = -100mA$ (Note.1)			-1.2	
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	$V_{CE} = -5V, I_C = -1A$ (Note.1)			-1	
DC current gain (Note.1)	$h_{FE(1)}$	$V_{CE} = -5V, I_C = -1mA$	100			
	$h_{FE(2)}$	$V_{CE} = -5V, I_C = -500mA$	100		300	
	$h_{FE(3)}$	$V_{CE} = -5V, I_C = -1 A$	80			
	$h_{FE(4)}$	$V_{CE} = -5V, I_C = -2 A$	15			
Collector output capacitance	C_{ob}	$V_{CB} = -10V, f = 1MHz$			10	pF
Transition frequency	f_T	$V_{CE} = -10V, I_C = -50mA, f = 100MHz$	150			MHz

Note.1: Pulse width=300us. Duty cycle $\leq 2\%$

