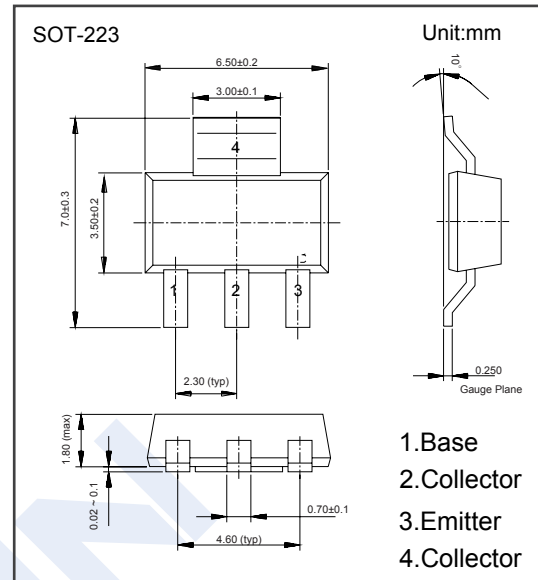
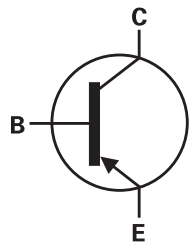


PNP Transistors

ZXTP2013 (KXTP2013)

■ Features

- 5 A continuous current
- Up to 10 A peak current
- Very low saturation voltages



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-140	V
Collector - Emitter Voltage	V_{CE0}	-100	
Emitter - Base Voltage	V_{EB0}	-7	
Collector Current - Continuous (Note.1)	I_C	-5	A
Collector Current - Pulse	I_{CP}	-10	
Collector Power Dissipation (Note.1)	P_C	3	W
Linear derating factor		24	mW/°C
Collector Power Dissipation (Note.2)	P_C	1.6	W
Linear derating factor		12.8	mW/°C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	42	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature range	T_{stg}	-55 to 150	

Note.1: For a device surface mounted on 52mm x 52mm x 1.6mm FR4 PCB with high coverage of single sided 2oz copper, in still air conditions.

Note.2: For a device surface mounted on 25mm x 25mm x 1.6mm FR4 PCB with high coverage of single sided 1oz copper, in still air conditions.

PNP Transistors

ZXTP2013 (KXTP2013)

■ 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	-140			V
Collector- emitter breakdown voltage	V _{CER}	I _c =-1 A, R _B ≤ 1kΩ	-140			
Collector- emitter breakdown voltage	V _{CEO}	I _c = -10 mA, I _B =0	-100			
Emitter - base breakdown voltage	V _{EBO}	I _E = -100 μA, I _c =0	-7			
Collector-base cut-off current	I _{CB0}	V _{CB} = -100 V, I _E =0			-0.1	μA
		V _{CB} = -100 V, I _E =0, Ta = 100°C			-0.5	
Collector- emittercut-off current R _B ≤ 1kΩ	I _{CER}	V _{CB} = -100 V, I _E =0			-0.1	
		V _{CB} = -100 V, I _E =0, Ta = 100°C			-0.5	
Emitter cut-off current	I _{EBO}	V _{EB} = -6V, I _c =0			-0.1	
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =-100 mA, I _B =-10mA			-30	mV
		I _c =-1 A, I _B =-100mA			-90	
		I _c =-2 A, I _B =-200mA			-150	
		I _c =-4 A, I _B =-400mA			-340	
Base - emitter saturation voltage	V _{BE(sat)}	I _c =-4 A, I _B =-400mA			-1.1	V
Base-emitter turn-on voltage	V _{BE(on)}	V _{CE} = -2V, I _c = -4 A			-1.05	
DC current gain	h _{FE(1)}	V _{CE} = -1V, I _c = -10mA	100			
	h _{FE(2)}	V _{CE} =- 1V, I _c = -1 A	100		300	
	h _{FE(3)}	V _{CE} =- 1V, I _c = -3 A	25			
	h _{FE(4)}	V _{CE} =- 1V, I _c = -4 A	15			
	h _{FE(5)}	V _{CE} =- 1V, I _c = -10 A		5		
Switching times	t _{ON}	I _c =-1A, V _{CC} =-10V, I _{B1} =I _{B2} =-100mA		42		ns
	t _{OFF}			540		
Collector output capacitance	C _{ob}	V _{CB} = -10V, I _E =0,f=1MHz		42		pF
Transition frequency	f _T	V _{CE} = -10V, I _c = -100mA,f=50MHz		125		MHz

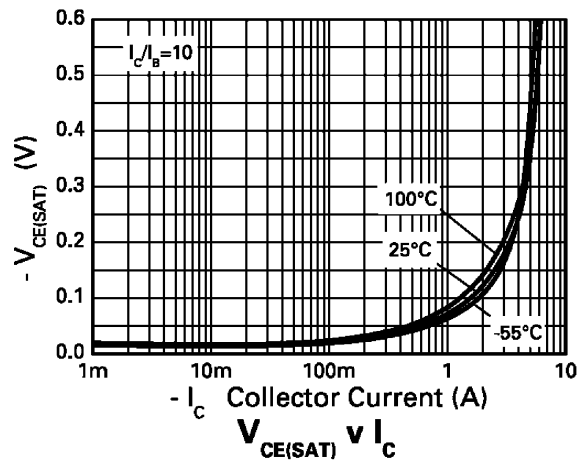
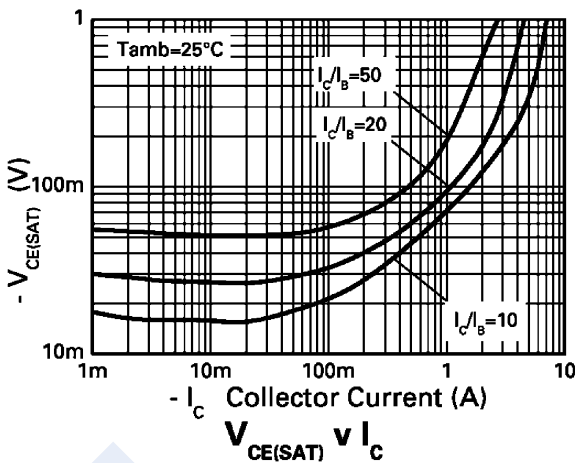
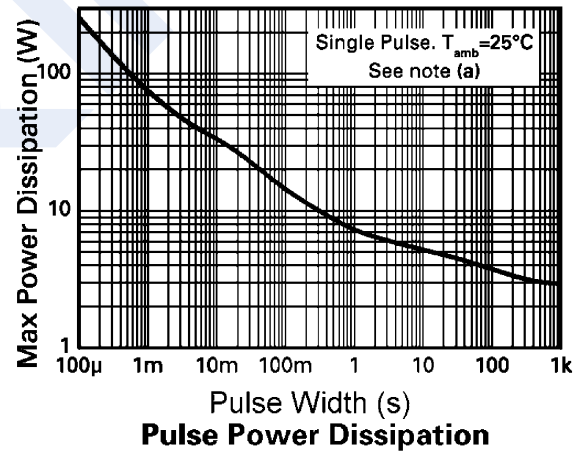
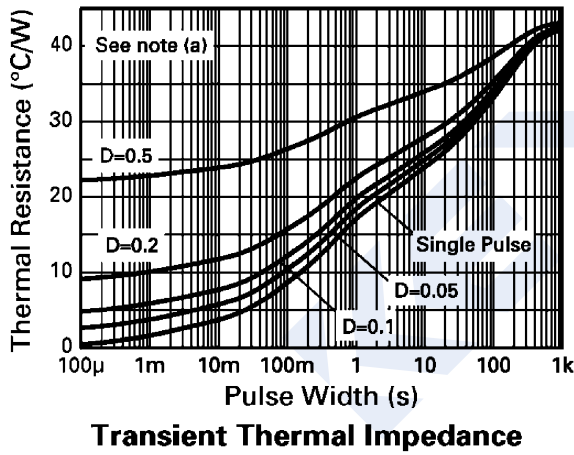
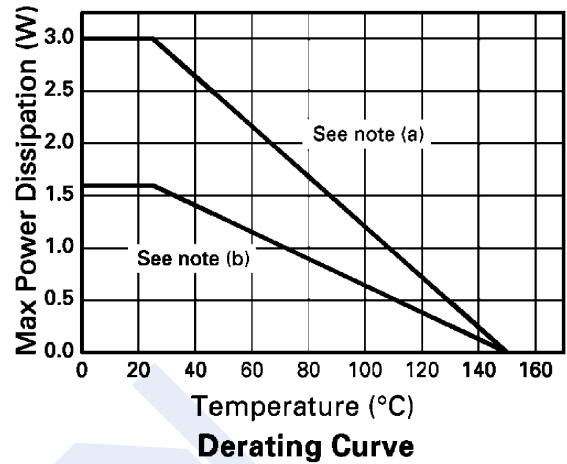
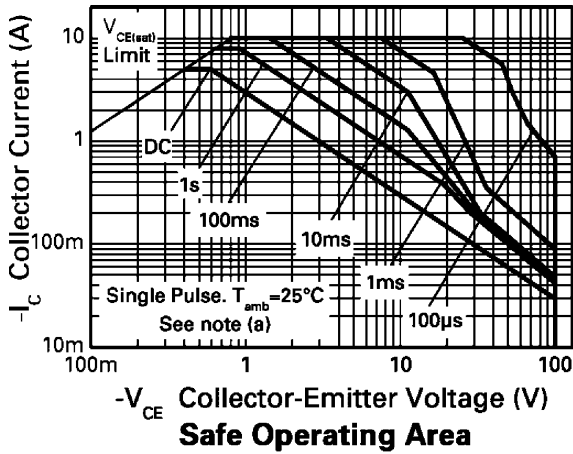
■ Marking

Marking	ZXTP 2013
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PNP Transistors

ZXTP2013 (KXTP2013)

■ Typical Characteristics



PNP Transistors ZXTP2013 (KXTP2013)

■ Typical Characteristics

