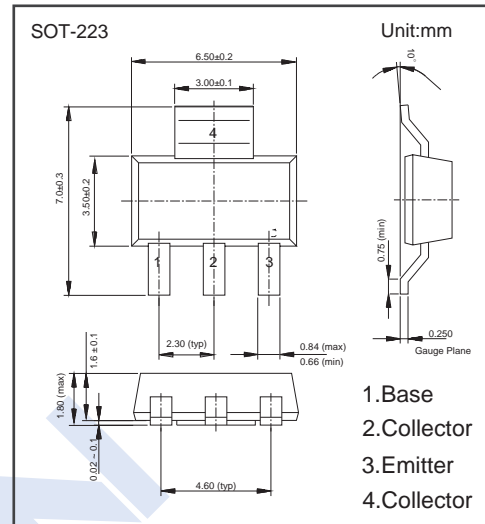


PNP Transistors

2KB4015

■ Features

- Collector Current Capability $I_C = -4A$
- Collector Emitter Voltage $V_{CE0} = -140V$
- Very low saturation voltages

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-180	V
Collector - Emitter Voltage	V_{CE0}	-140	
Emitter - Base Voltage	V_{EB0}	-6	
Collector Current - Continuous	I_C	-4	A
Peak Pulse Current	I_{CM}	-10	
Collector Power Dissipation	P_C	3	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature range	T_{stg}	-55 to 150	

PNP Transistors

2KB4015

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CBO}	I _C = -100 μA, I _E =0	-180			V
Collector- emitter breakdown voltage	V _{CER}	I _C =-1 uA, R _B < 1kΩ	-180			
Collector- emitter breakdown voltage	V _{CEO}	I _C = -10 mA, I _B =0	-140			
Emitter - base breakdown voltage	V _{EBO}	I _E = -100 μ A, I _C =0	-6			
Collector-base cut-off current	I _{CBO}	V _{CB} = -150 V, I _E =0			-50	nA
		V _{CB} = -150 V, I _E =0, Ta = 100°C			-1	uA
Collector cut-off current R < 1kΩ	I _{CER}	V _{CE} = -140 V, I _E =0			-50	nA
		V _{CE} = -140 V, I _E =0, Ta = 100°C			-1	uA
Emitter cut-off current	I _{EBO}	V _{EB} = -6V, I _C =0			-100	nA
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-100 mA, I _B =-5 mA			-60	mV
		I _C =-500 mA, I _B =-50mA			-120	
		I _C =-1 A, I _B =-100mA			-150	
		I _C =-3 A, I _B =-300mA			-370	
Base - emitter saturation voltage	V _{BE(sat)}	I _C =-3 A, I _B =-300mA			-1110	
Base - emitter turn-on voltage	V _{BE(on)}	V _{CE} = -5V, I _C = -3A			-950	
DC current gain	h _{FE}	V _{CE} = -5V, I _C = -10mA	100			
		V _{CE} =- 5V, I _C = -1 A	100		300	
		V _{CE} = -5V, I _C = -3 A	75			
		V _{CE} = -5V, I _C = -10 A		10		
Switching Times	t _{on}	I _C =-1A, I _{B1} =-100mA		68		ns
	t _{off}	I _{B2} =100mA, V _{CC} =-50V		1030		
Collector output capacitance	C _{ob}	V _{CB} = -20V, f=1MHz		40		pF
Transition frequency	f _T	V _{CE} = -10V, I _C = -100mA, f=50MHz		110		MHz

Note : Measured under pulsed conditions. Pulse width=300 us. Duty cycle ≤2%

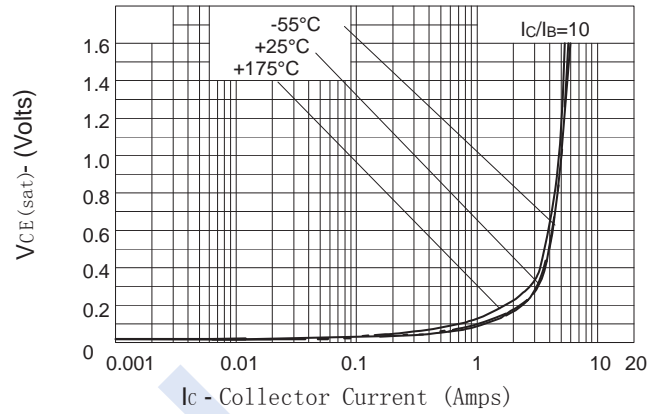
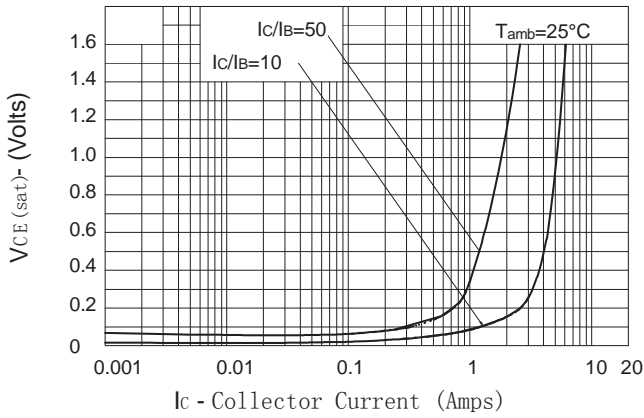
■ Marking

Marking	2KC
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PNP Transistors

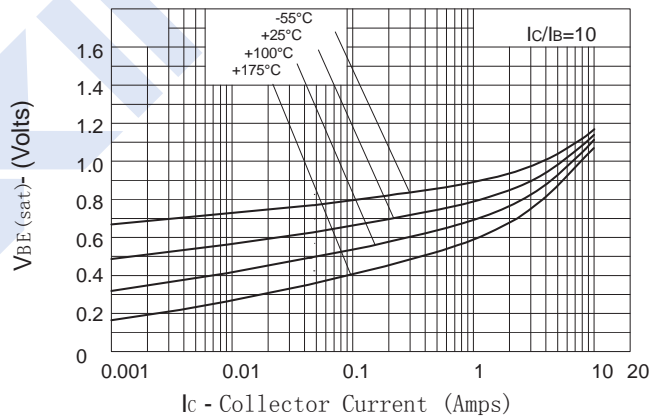
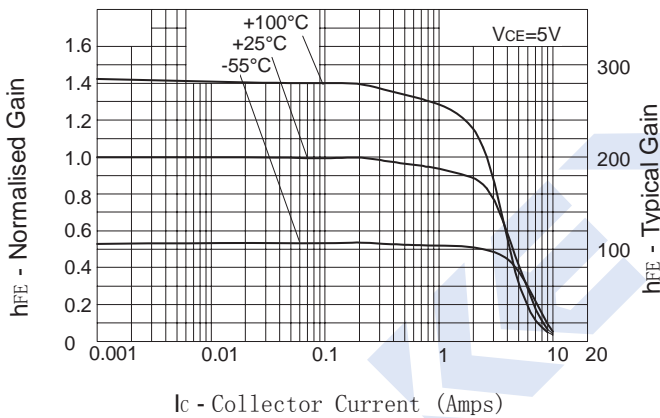
2KB4015

■ Typical Characteristics



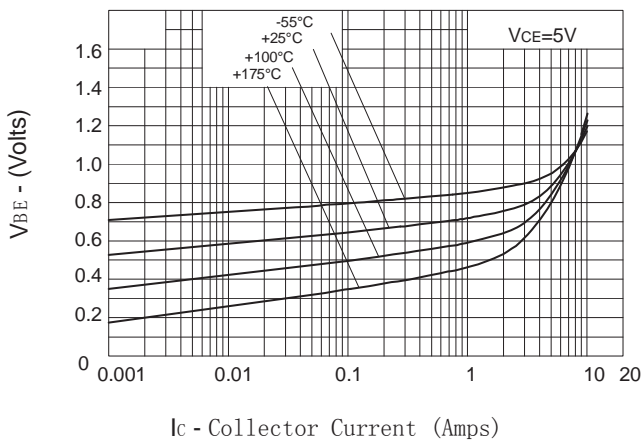
VCE(sat) v IC

VCE(sat) v IC

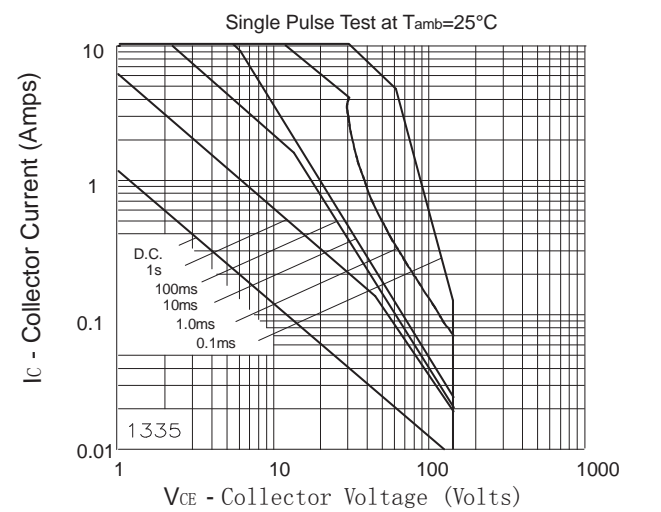


hFE v IC

VBE(sat) v IC



VBE(on) v IC



Safe Operating Area