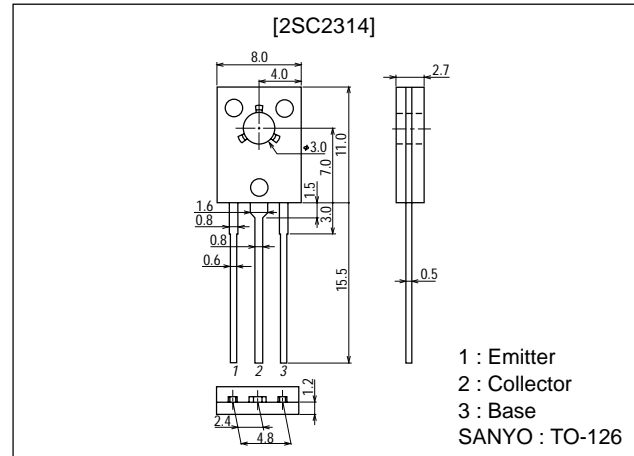


**2SC2314****27MHz CB Transceiver Driver Applications****Package Dimensions**

unit:mm

2009B

**Specifications****Absolute Maximum Ratings** at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}	$R_{BE}=150\Omega$	75	V
Collector-to-Emitter Voltage	V_{CER}		75	V
Collector-to-Base Voltage	V_{CEO}		45	V
Emitter-to-Base Voltage	V_{EBO}		5	V
Collector Current	I_C		1.0	A
Collector Current (Pulse)	I_{CP}		1.5	A
Collector Dissipation	P_C		750	mW
		$T_c=25^\circ\text{C}$	5	W
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=40\text{V}, I_E=0$			1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$			1.0	μA
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	75			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CER}$	$I_C=1\text{mA}, R_{BE}=150\Omega$	75			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, R_{BE}=\infty$	45			V

* : The 2SC2314 are classified by 500mA h_{FE} as follows :

Continued on next page.

Rank	D	E	F
h_{FE}	60 to 120	100 to 200	160 to 320

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■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

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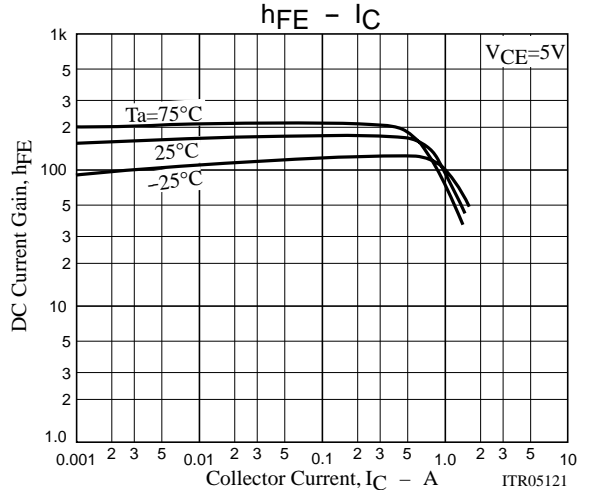
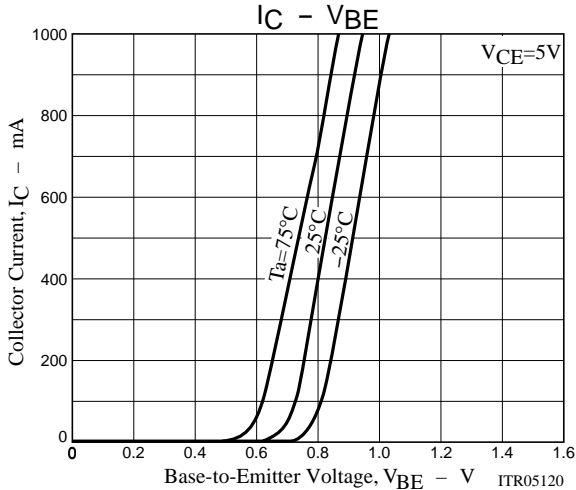
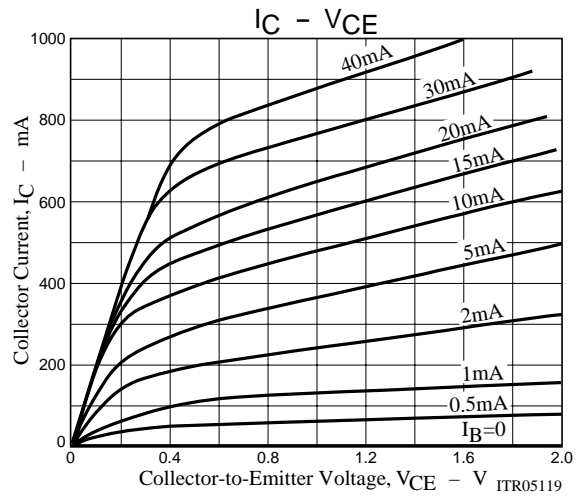
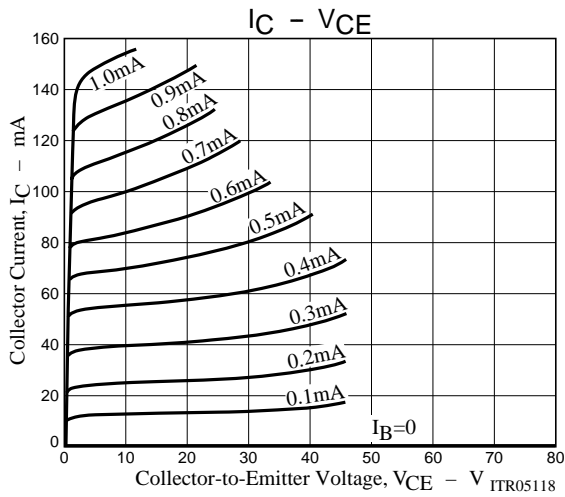
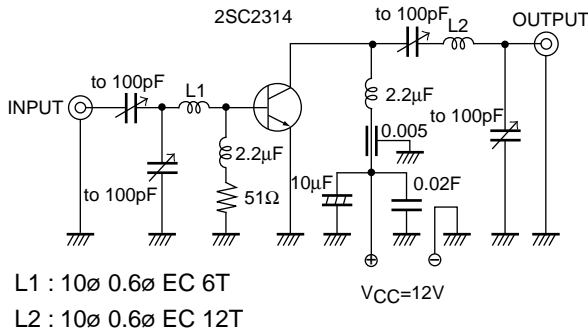
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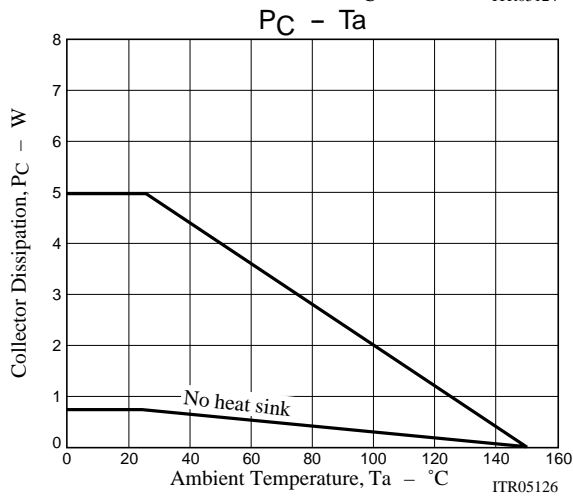
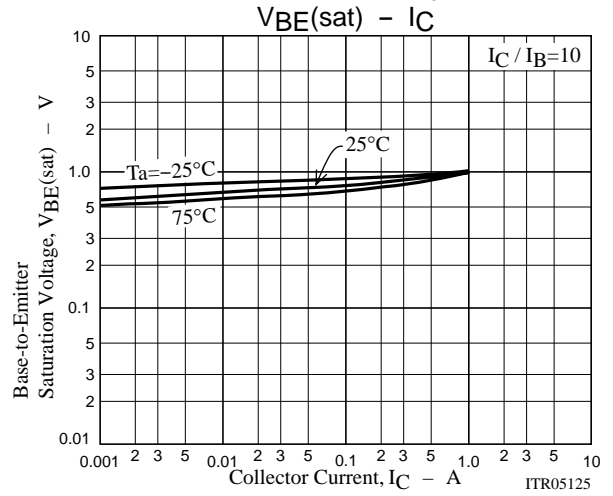
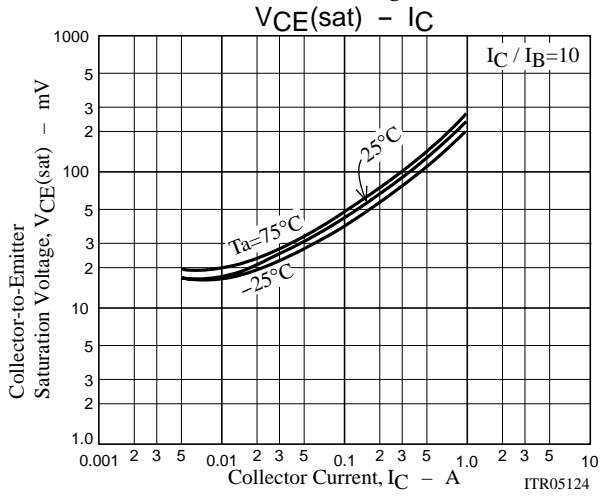
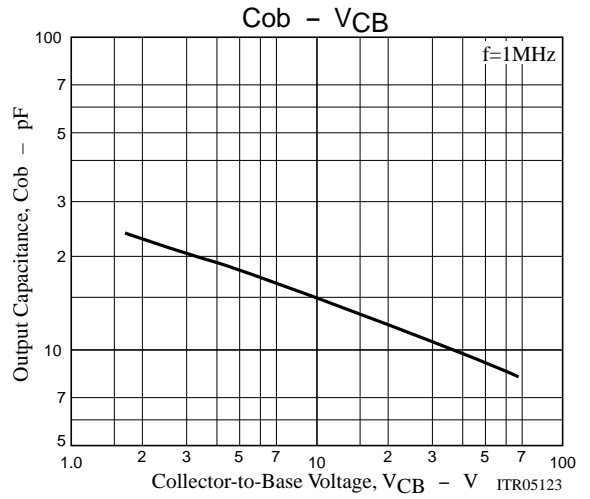
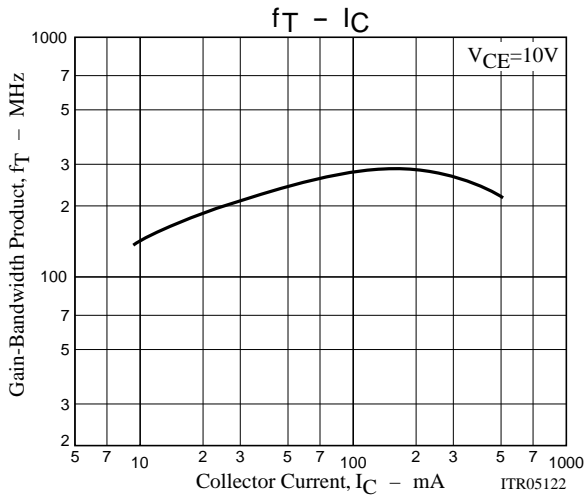
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
DC Current Gain	h_{FE}	$V_{CE}=5V, I_C=500mA$	60*		320*	
Gain-Bandwidth Product	f_T	$V_{CE}=10V, I_C=50mA$	180	250		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		15	25	pF
Output Power	P_O	$V_{CC}=12V, f=27MHz, P_i=35mW$	1.0	1.8		W
Collector Efficiency	η_c	See specified test circuit.	60			%
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$		0.2	0.6	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=50mA$		0.9	1.2	V

Collector Efficiency Test Circuit



2SC2314



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