

**SANYO**

No.485F

**2SC2314**

NPN Epitaxial Planar Silicon Transistor

27MHz CB Transceiver Driver Applications

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

				unit
Collector-to-Base Voltage	$V_{CB0}$	$R_{BE} = 150\Omega$	75	V
Collector-to-Emitter Voltage	$V_{CER}$		75	V
Collector-to-Emitter Voltage	$V_{CEO}$		45	V
Emitter-to-Base Voltage	$V_{EBO}$		5	V
Collector Current	$I_C$		1.0	A
	$I_{CP}$		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	$^\circ\text{C}$

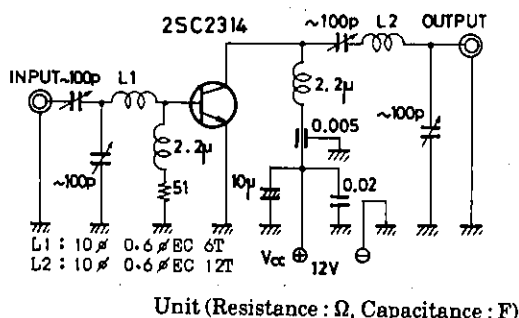
Electrical Characteristics at  $T_a = 25^\circ\text{C}$ 

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 40\text{V}, I_E = 0$			1.0	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4\text{V}, I_C = 0$			1.0	$\mu\text{A}$
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	75			V
C-E Breakdown Voltage	$V_{(BR)CER}$	$I_C = 1\text{mA}, R_{BE} = 150\Omega$	75			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	45			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	5			V
DC Current Gain	$h_{FE}$	$V_{CE} = 5\text{V}, I_C = 500\text{mA}$	60*		320*	
Gain-Bandwidth Product	$f_T$	$V_{CE} = 10\text{V}, I_C = 50\text{mA}$	180	250		MHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		15	25	pF
Output Power	$P_o$	$V_{CC} = 12\text{V}, f = 27\text{MHz}, P_i = 35\text{mW}$	1.0	1.8		W
Collector Efficiency	$\eta_c$	See specified Test Circuit.	60			%
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$		0.2	0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$		0.9	1.2	V

\* : The 2SC2314 is classified by 500mA  $h_{FE}$  as follows :

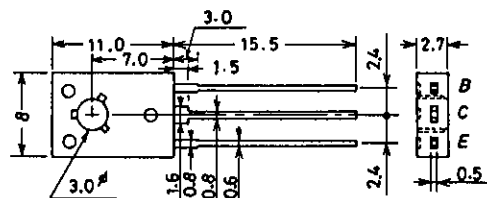
60	D	120	100	E	200	160	F	320
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## Collector Efficiency Test Circuit



## Package Dimensions 2009A

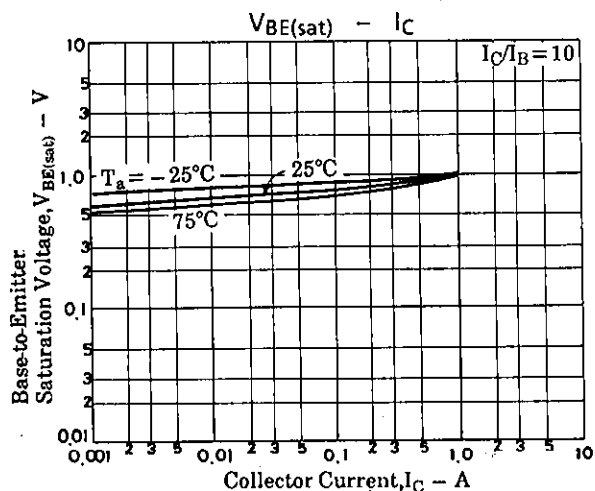
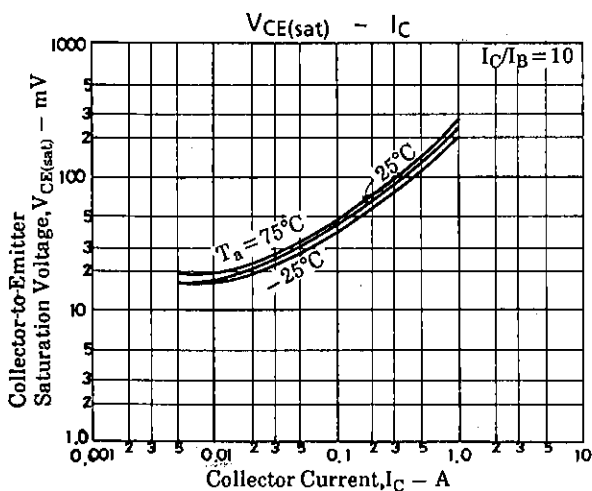
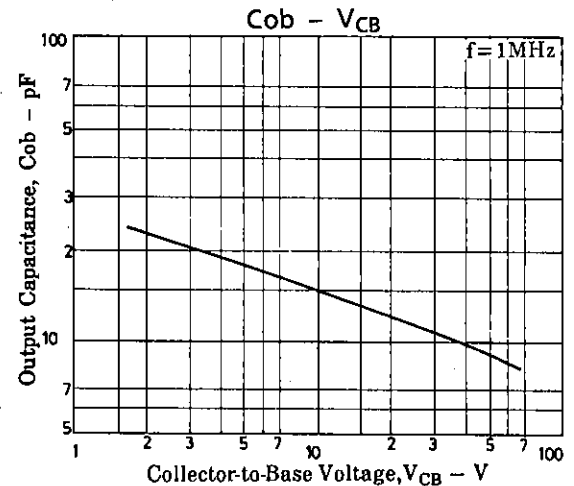
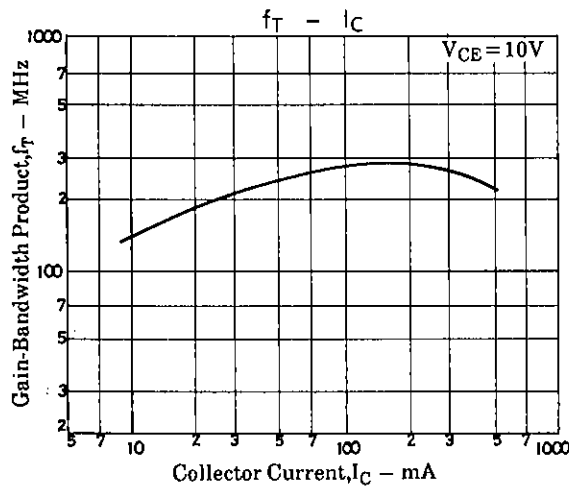
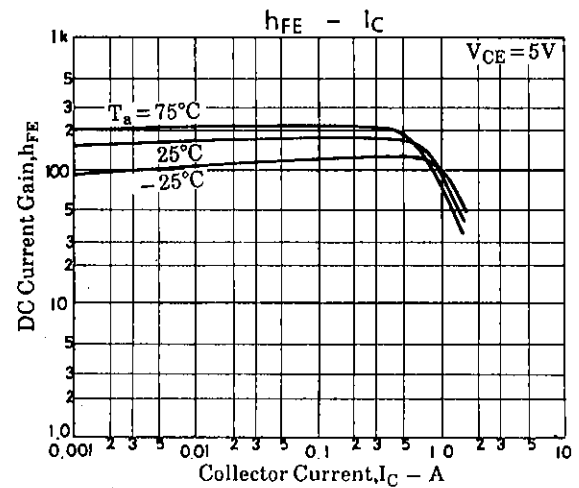
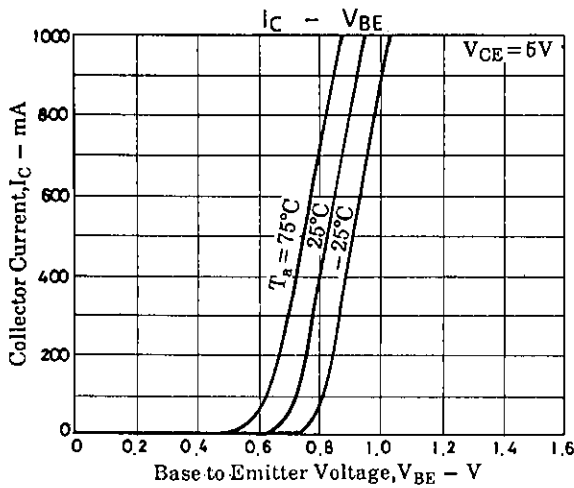
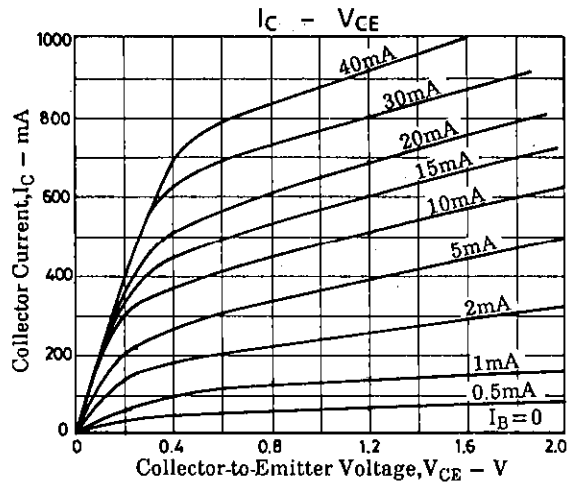
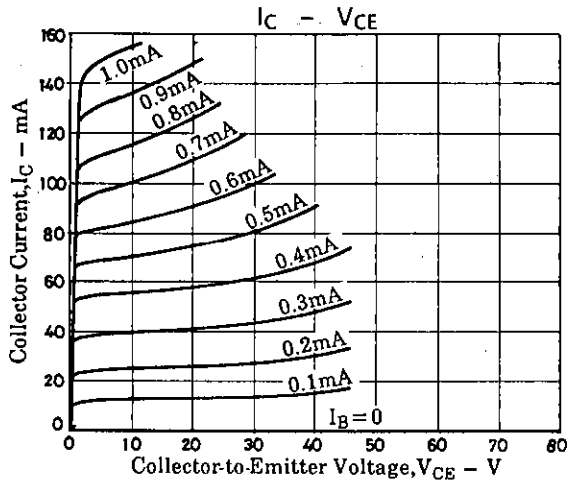
(unit : mm)

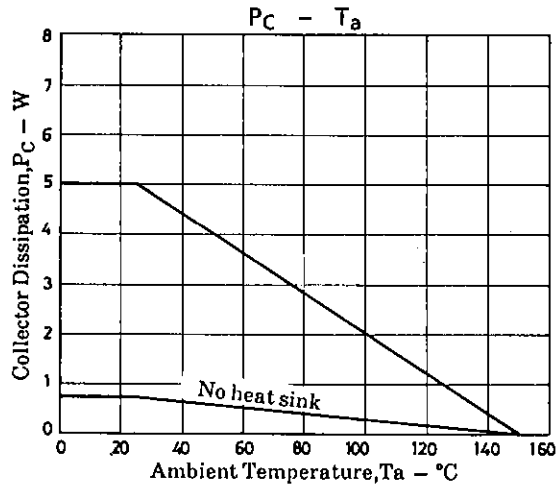


JEDEC: TO-126

B: Base  
C: Collector  
E: Emitter

**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**  
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN





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