

SANYO

No.485F

2SC2314

NPN Epitaxial Planar Silicon Transistor

27MHz CB Transceiver Driver Applications**Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$**

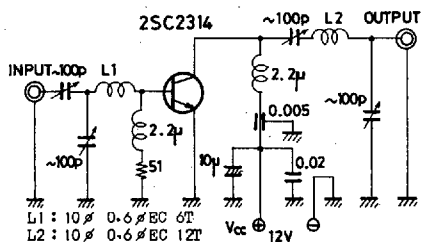
Collector-to-Base Voltage	V_{CBO}	$R_{BE} = 150\Omega$	75	V
Collector-to-Emitter Voltage	V_{CER}		75	V
Collector-to-Emitter Voltage	V_{CEO}		45	V
Emitter-to-Base Voltage	V_{EBO}		5	V
Collector Current	I_C		1.0	A
Collector Current (Pulse)	I_{CP}		1.5	A
Collector Dissipation	P_C		750	mW
		$T_c = 25^\circ\text{C}$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

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

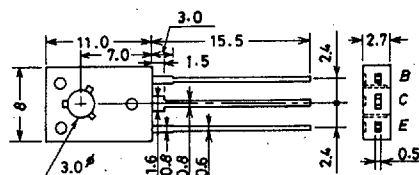
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 40\text{V}, I_E = 0$			1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4\text{V}, I_C = 0$			1.0	μA
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	75			V
C-E Breakdown Voltage	$V_{(BR)CER}$	$I_C = 1\text{mA}, R_{BE} = 150\Omega$	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	η_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 CircuitUnit (Resistance : Ω , Capacitance : F)**Package Dimensions 2009A**

(unit : mm)



JEDEC: TO-126

B: Base
C: Collector
E: Emitter**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

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2090MO/4147K1/1165MW, TS No.485-1/3

