Ordering number: EN3974

SANYO

No.3974

2SC4735

NPN Epitaxial Planar Silicon Transistor

27MHz CB Transceiver Driver Applications

Features

- Large power type such as $P_C = 1.5W$ when used without heatsink.
- It is possible to make appliances more compact because its height on board is 9.5mm.
- Effective in automatic inserting and counting stocked amount because of being provided for radial taping.

Absolute Maximum Ratings at Ta = 25°C

				unit
Collector-to-Base Voltage	V_{CBO}		75	V
Collector-to-Emitter Voltage	V_{CER}	$R_{BE} = 150\Omega$	75	V
	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
Base Current	I_B		200	mA
Collector Dissipation	P_C		1.5	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

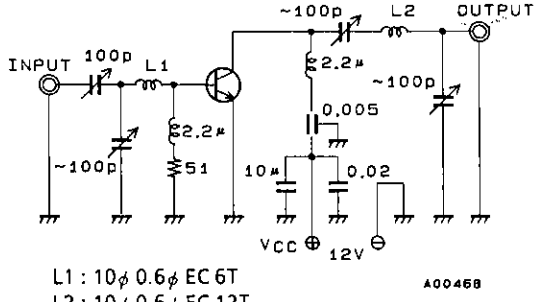
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 40V, I_E = 0$			1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			1.0	μA
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}	$V_{CB} = 10V, f = 1MHz$		10	20	pF
Output Power	P_O	$V_{CC} = 12V, f = 27MHz, Pi = 35mW$	1.0	1.8		W
Collector Efficiency	ηc	See specified Test Circuit.	60			%
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$		0.2	0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 50mA$		0.9	1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	75			V
C-E Breakdown Voltage	$V_{(BR)CER}$	$I_C = 1mA, R_{BE} = 150\Omega$	75			V
	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	45			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_C = 10\mu A, I_C = 0$	5			V

※ : The 2SC4735 is classified by 500mA h_{FE} as follows :

60 D 120	100 E 200	160 F 320

Collector Efficiency Test Circuit

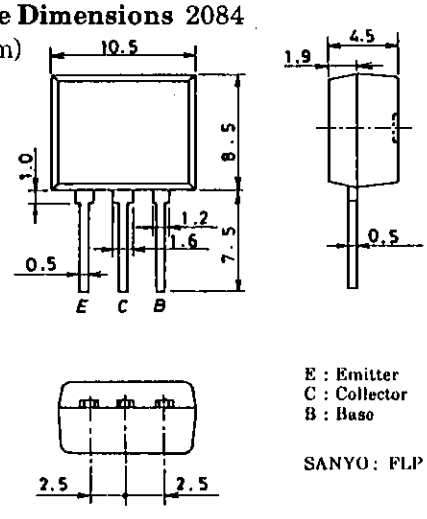


L1 : 10φ 0.6φ EC 6T
L2 : 10φ 0.6φ EC 12T

Unit (capacitance: F)

Package Dimensions 2084

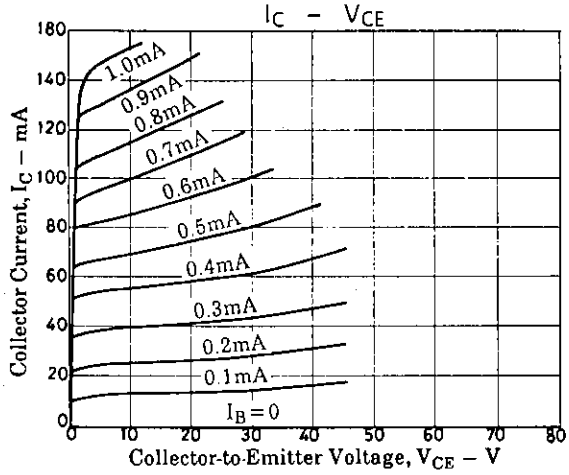
(unit : mm)



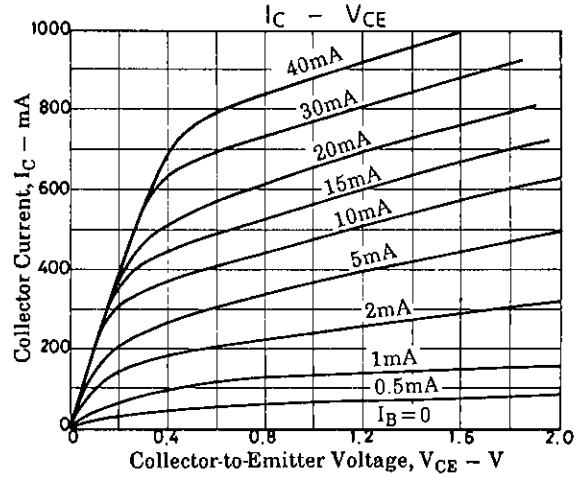
E : Emitter
C : Collector
B : Base

SANYO : FLP

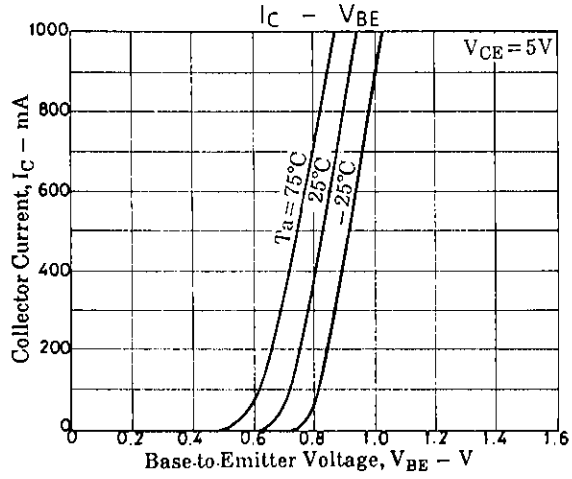
I_C – V_{CE}



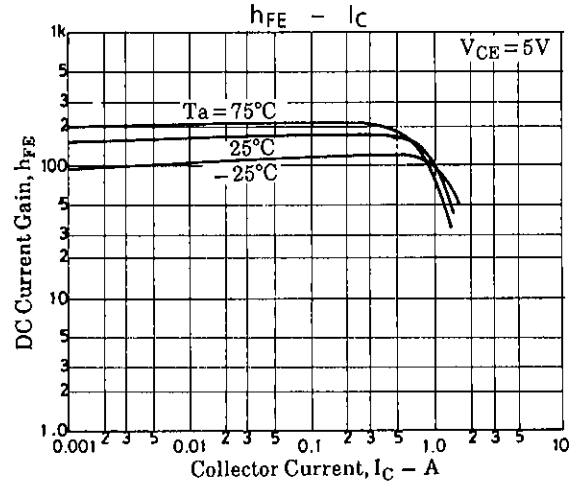
I_C – V_{CE}



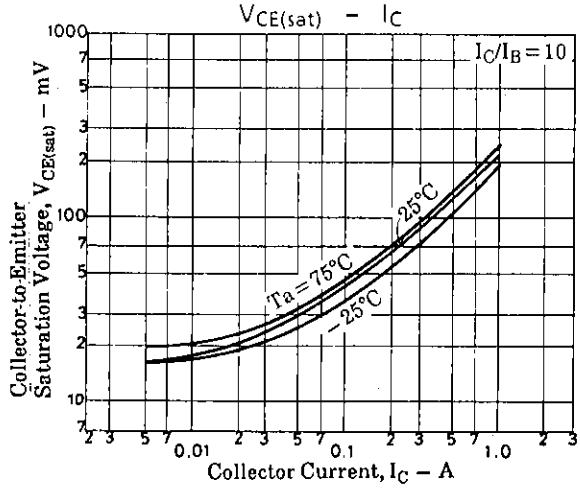
I_C – V_{BE}



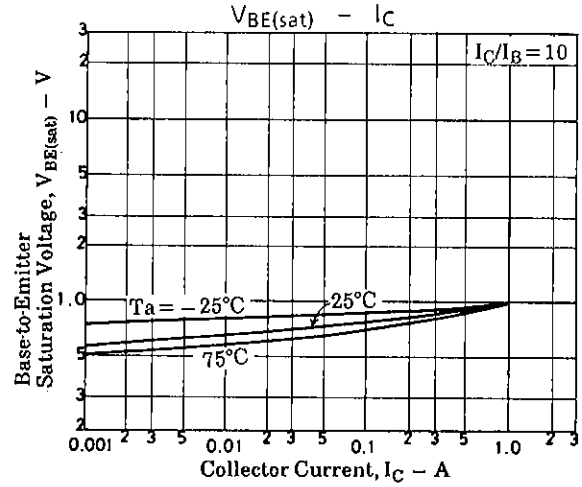
h_{FE} – I_C



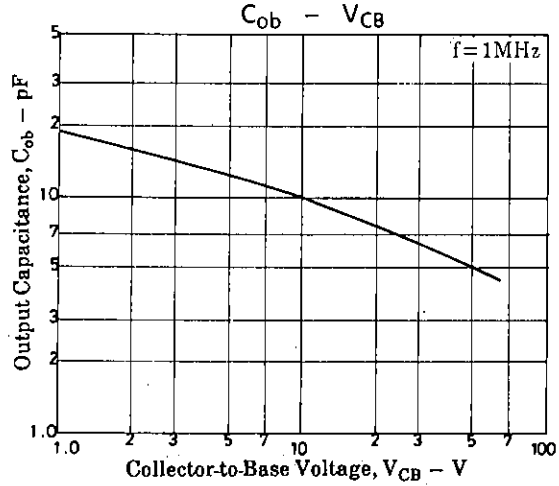
$V_{CE(sat)}$ – I_C



$V_{BE(sat)}$ – I_C



C_{ob} – V_{CB}



f_T – I_C