2SC3611

Silicon NPN epitaxial planar type

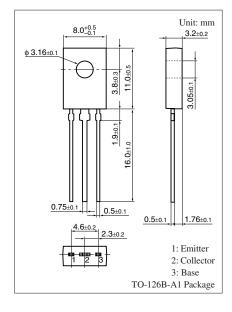
For video amplifier

■ Features

- High transition frequency f_T
- \bullet Small collector output capacitance (Common base, input open circuited) C_{ob}
- Wide current range
- TO-126B package which requires no insulation plate for installation to the heat sink

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V _{CBO}	110	V	
Collector-emitter voltage (Resistor between B and E)	V _{CER}	100	V	
Collector-emitter voltage (Base open)	V _{CEO}	50	V	
Emitter-base voltage (Collector open)	V_{EBO}	3.5	V	
Collector current	I_C	150	mA	
Peak collector current	I_{CP}	300	mA	
Collector power dissipation	P _C	1.2	W	
		4.0 *		
Junction temperature	T_{j}	150	°C	
Storage temperature	T _{stg}	-55 to +150	°C	

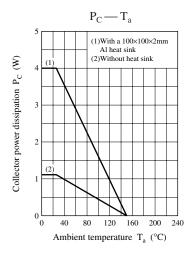


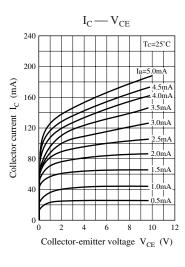
Note) *: With a $100 \times 100 \times 2$ mm Al heat sink

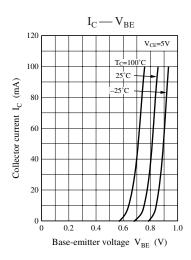
■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

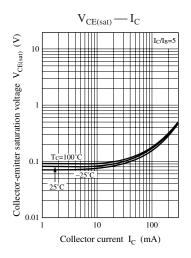
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_C = 100 \mu\text{A}, I_E = 0$	110			V
Collector-emitter voltage (Resistor between B and E)	V _{CER}	$I_C = 500 \ \mu A, R_{BE} = 470 \ \Omega$	100			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	50			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 100 \mu\text{A}, I_C = 0$	3.5			V
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 35 \text{ V}, I_{B} = 0$			10	μΑ
Forward current transfer ratio	h _{FE}	$V_{CE} = 5 \text{ V}, I_{C} = 100 \text{ mA}$	20			_
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = 150 \text{ mA}, I_B = 15 \text{ mA}$			0.5	V
Transition frequency	f _{T1}	$V_{CB} = 10 \text{ V}, I_E = -10 \text{ mA}, f = 200 \text{ MHz}$		300		MHz
	f _{T2}	$V_{CB} = 10 \text{ V}, I_E = -110 \text{ mA}, f = 200 \text{ MHz}$		350		
Collector output capacitance (Common base, input open circuited)	C _{ob}	$V_{CB} = 30 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		3		pF

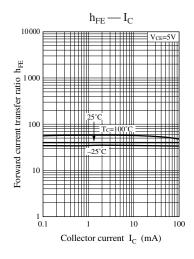
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

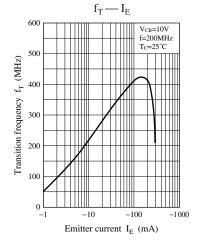


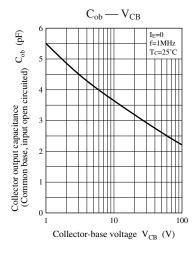


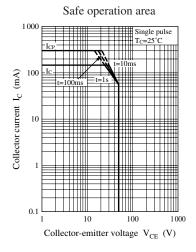


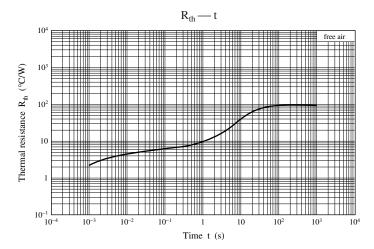












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