2SC3611 Datasheet

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DiGi Electronics Part Number	2SC3611-DG
Manufacturer	Panasonic Electronic Components
Manufacturer Product Number	2SC3611
Description	TRANS NPN 50V 0.15A TO126B-A1
Detailed Description	Bipolar (BJT) Transistor NPN 50 V 150 mA 300MHz 4 W Through Hole TO-126B-A1

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2SC3611	Panasonic Electronic Components
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	150 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
50 V	500mV @ 15mA, 150mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
10µA	20 @ 100mA, 5V
Power - Max:	Frequency - Transition:
4 W	300MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-225AA, TO-126-3	TO-126B-A1
Base Product Number:	
2SC361	

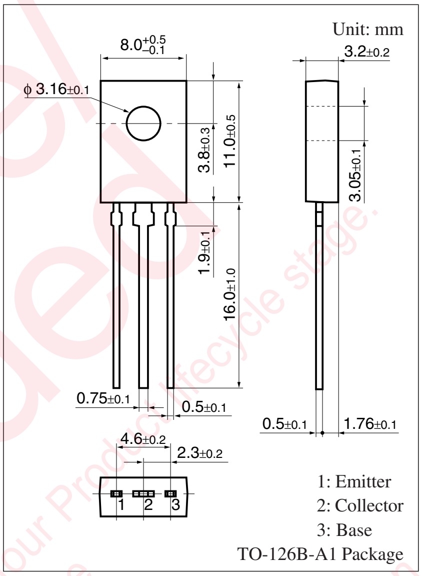
Environmental & Export classification

Moisture Sensitivity Level (MSL):	ECCN:
1 (Unlimited)	EAR99
HTSUS:	
8541.29.0075	

2SC3611

Silicon NPN epitaxial planar type

For video amplifier



■ Features

- High transition frequency f_T
- 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

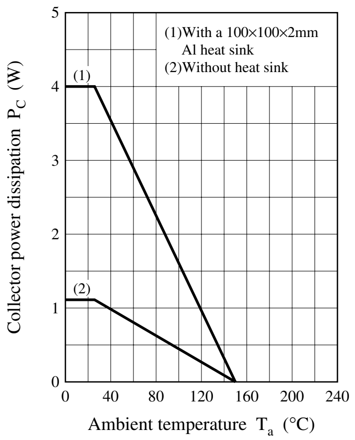
Note) ∗: With a 100 × 100 × 2 mm Al heat sink

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

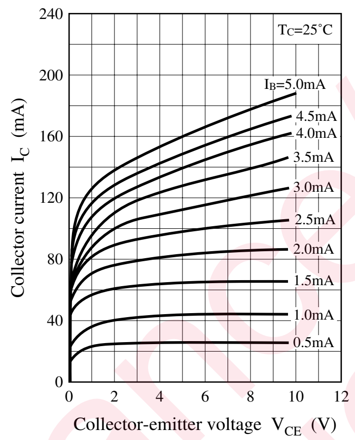
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = 100$ µA, $I_E = 0$	110			V
Collector-emitter voltage (Resistor between B and E)	V_{CER}	$I_C = 500$ µA, $R_{BE} = 470\ \Omega$	100			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 1$ mA, $I_B = 0$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

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

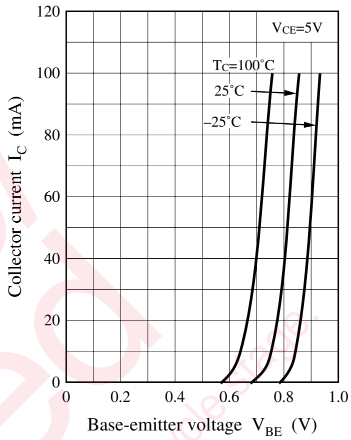
P_C — T_a



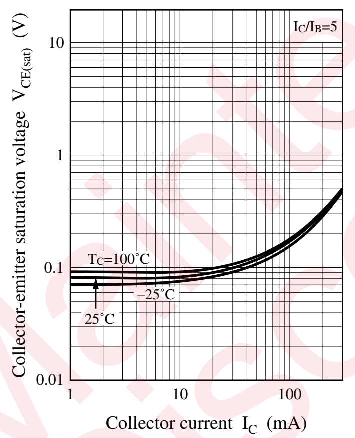
I_C — V_{CE}



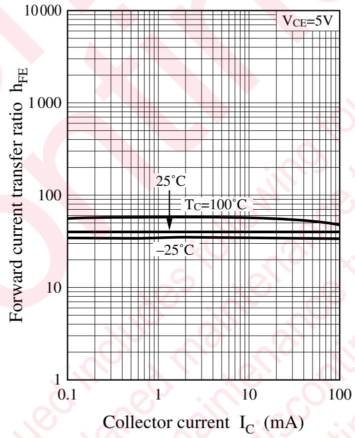
I_C — V_{BE}



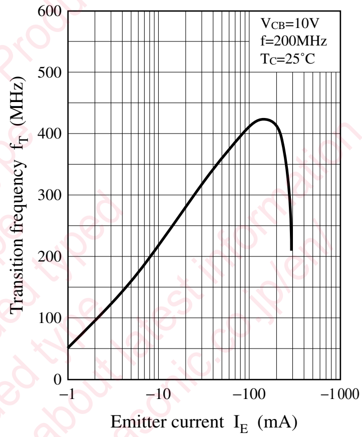
$V_{CE(sat)}$ — I_C



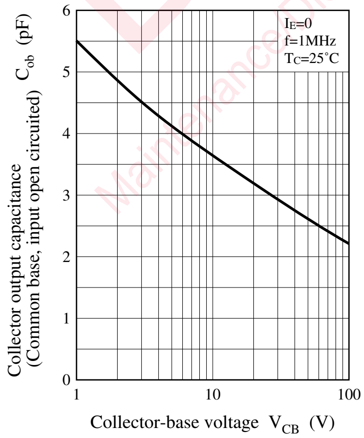
h_{FE} — I_C



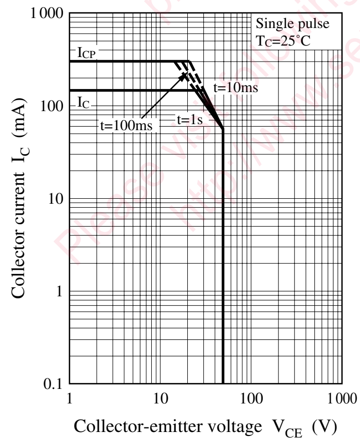
f_T — I_E

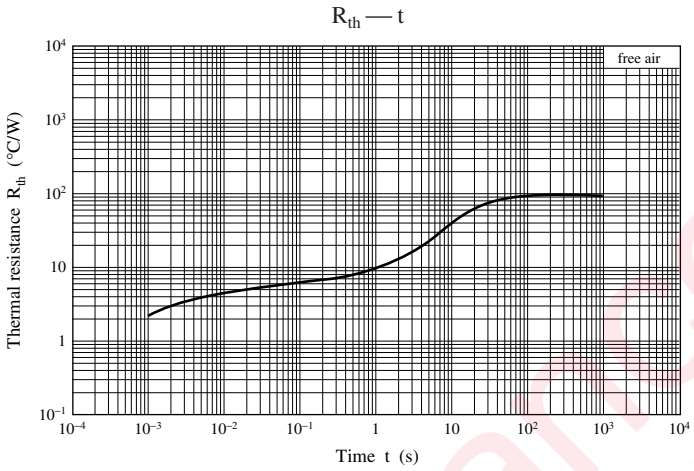


C_{ob} — V_{CB}



Safe operation area





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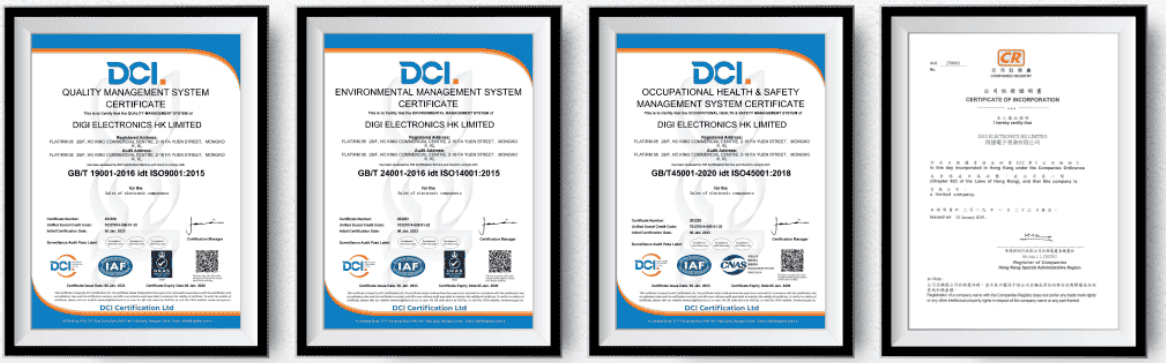

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