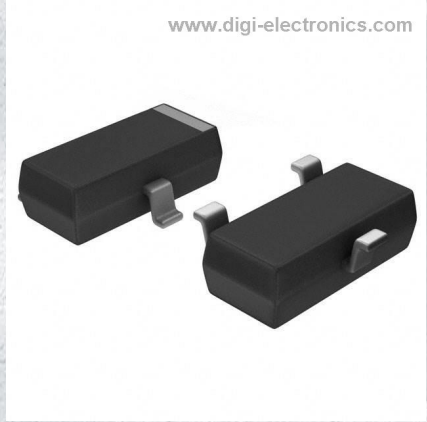
2SA201000L Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	2SA201000L-DG
Manufacturer	Panasonic Electronic Components
Manufacturer Product Number	2SA201000L
Description	TRANS PNP 15V 2.5A MINI3
Detailed Description	Bipolar (BJT) Transistor PNP 15 V 2.5 A 180MHz 600 mW Surface Mount Mini3-G1

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2SA201000L	Panasonic Electronic Components
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP	2.5 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
15 V	320mV @ 50mA, 2.5A
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100nA (ICBO)	200 @ 100mA, 2V
Power - Max:	Frequency - Transition:
600 mW	180MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Surface Mount
Package / Case:	Supplier Device Package:
TO-236-3, SC-59, SOT-23-3	Mini3-G1
Base Product Number:	
2SA2010	

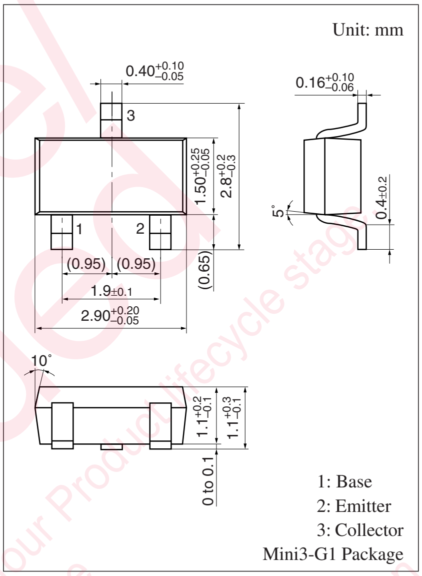
Environmental & Export classification

Moisture Sensitivity Level (MSL):	ECCN:
1 (Unlimited)	EAR99
HTSUS:	
8541.21.0075	

2SA2010

Silicon PNP epitaxial planar type

For DC-DC converter
For various driver circuits



Marking Symbol: AS

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- High-speed switching
- Mini type package, allowing downsizing and thinning of the equipment and automatic insertion through the tape packing.

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	−15	V
Collector-emitter voltage (Base open)	V_{CEO}	−15	V
Emitter-base voltage (Collector open)	V_{EBO}	−5	V
Collector current	I_C	−2.5	A
Peak collector current	I_{CP}	−10	A
Collector power dissipation *	P_C	600	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

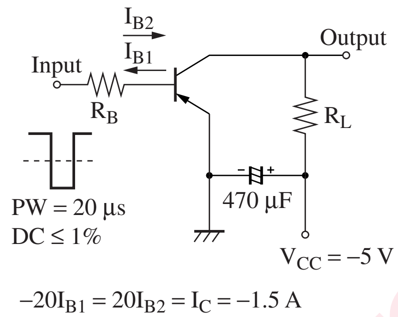
Note) *: Measure on the ceramic substrate at 15 mm × 15 mm × 0.6 mm

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

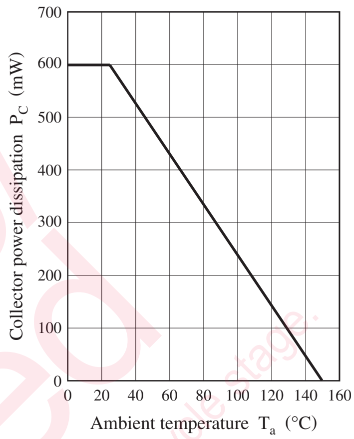
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10$ μA, $I_E = 0$	−15			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -1$ mA, $I_B = 0$	−15			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10$ μA, $I_C = 0$	−5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -10$ V, $I_E = 0$			− 0.1	μA
Forward current transfer ratio *	h_{FE1}	$V_{CE} = -2$ V, $I_C = -100$ mA	200		560	—
	h_{FE2}	$V_{CE} = -2$ V, $I_C = -2.5$ A	100			
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -1$ A, $I_B = -10$ mA		−140		mV
		$I_C = -2.5$ A, $I_B = -50$ mA		−270	−320	
Transition frequency	f_T	$V_{CB} = -10$ V, $I_E = 50$ mA, f = 200 MHz		180		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10$ V, $I_E = 0$, f = 1 MHz		40		pF
Turn-on time	t_{on}	Refer to the measurement circuit		35		ns
Turn-off time	t_{off}			10		ns
Storage time	t_{stg}			110		ns

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Pulse measurement

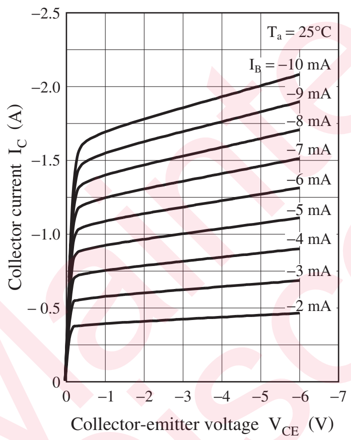
■ Measurement Circuit



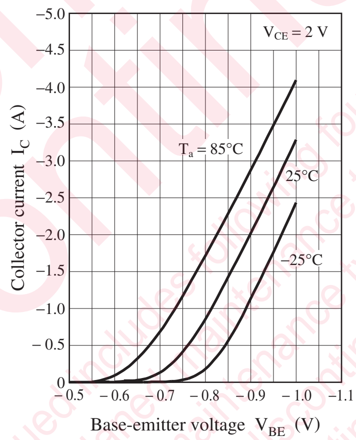
P_C — T_a



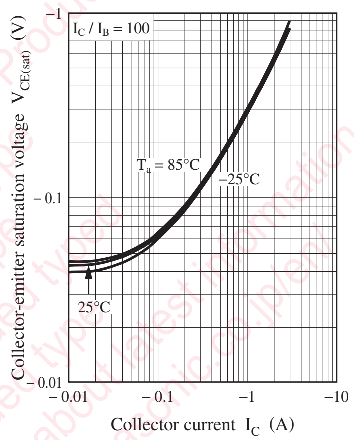
I_C — V_{CE}



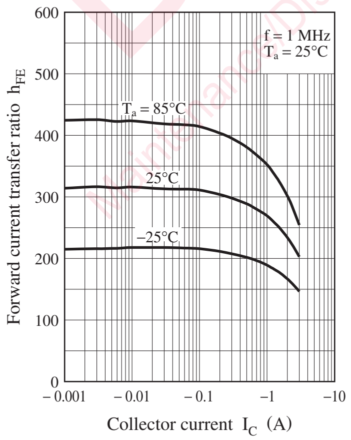
I_C — V_{BE}



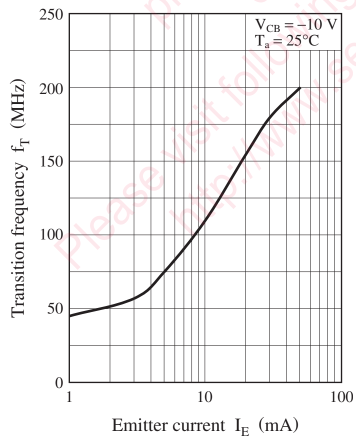
$V_{CE(sat)}$ — I_C



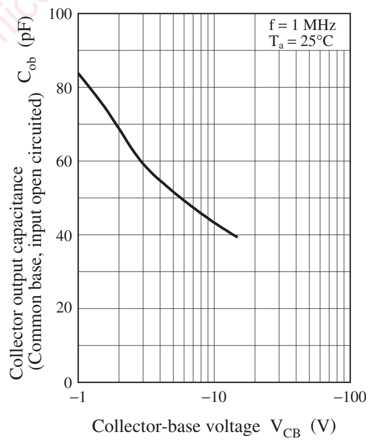
h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}



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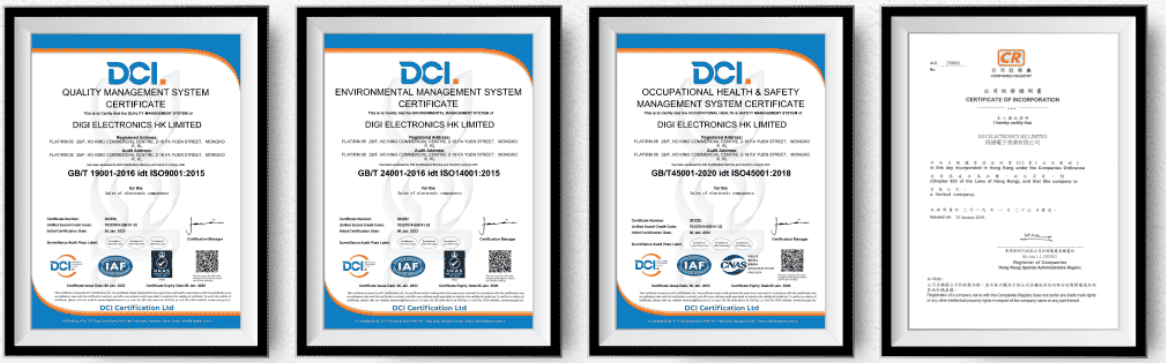

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