2SB14460RA Datasheet

DiGi Electronics Part Number	2SB14460RA-DG
Manufacturer	Panasonic Electronic Components
Manufacturer Product Number	2SB14460RA
Description	TRANS PNP 50V 5A MT-2
Detailed Description	Bipolar (BJT) Transistor PNP 50 V 5 A 70MHz 1 W Through Hole MT-2-A1

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2SB14460RA	Panasonic Electronic Components
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP	5 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
50 V	300mV @ 100mA, 2A
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100nA (ICBO)	120 @ 500mA, 2V
Power - Max:	Frequency - Transition:
1 W	70MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
3-SIP	MT-2-A1
Base Product Number:	
2SB1446	

Environmental & Export classification

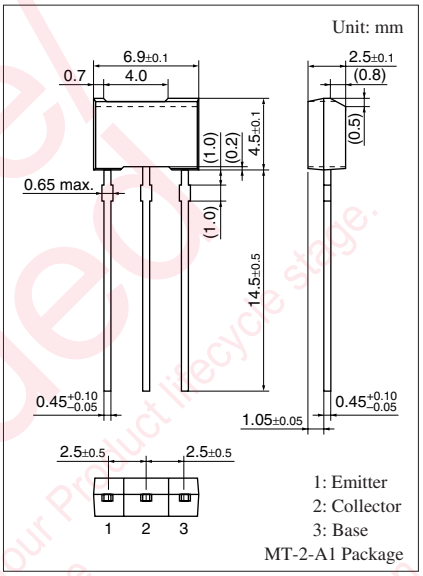
Moisture Sensitivity Level (MSL):	ECCN:
1 (Unlimited)	EAR99
HTSUS:	
8541.29.0075	

Panasonic

2SB1446

Silicon PNP epitaxial planar type

For low-frequency power amplification
Complementary to 2SD2179



■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Allowing supply with the radial taping

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	−50	V
Collector-emitter voltage (Base open)	V_{CEO}	−50	V
Emitter-base voltage (Collector open)	V_{EBO}	−5	V
Collector current	I_C	−5	A
Peak collector current	I_{CP}	−7	A
Collector power dissipation *	P_C	1	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) ∗: Print circuit board: Copper foil area of 1 cm^2 or more, and the board thickness of 1.7 mm for the collector portion

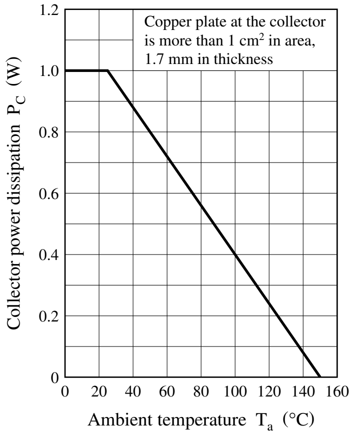
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10$ µA, $I_E = 0$	−50			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -1$ mA, $I_B = 0$	−50			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10$ µA, $I_C = 0$	−5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -20$ V, $I_E = 0$			− 0.1	µA
Forward current transfer ratio	h_{FE1} *2	$V_{CE} = -2$ V, $I_C = -500$ mA	120		340	—
	h_{FE2} *1	$V_{CE} = -2$ V, $I_C = -2.5$ A	60			
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -2$ A, $I_B = -100$ mA		− 0.2	− 0.3	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -2$ A, $I_B = -100$ mA		− 0.85	−1.20	V
Transition frequency	f_T	$V_{CB} = -10$ V, $I_E = 50$ mA, f = 200 MHz		70		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10$ V, $I_E = 0$, f = 1 MHz		90	120	pF

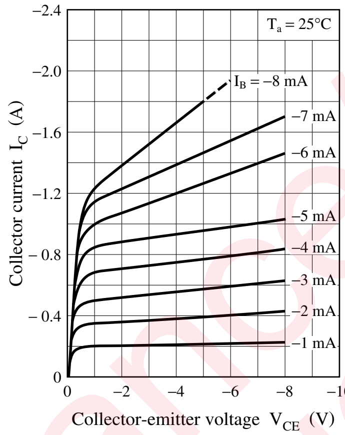
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. ∗1: Pulse measurement
∗2: Rank classification

Rank	P	Q
h_{FE1}	120 to 240	170 to 340

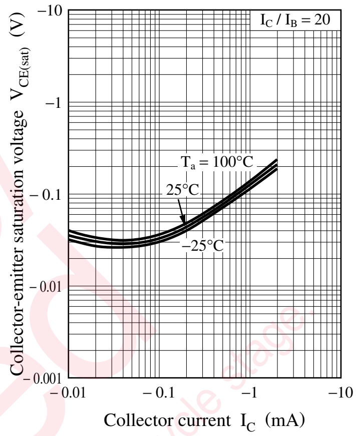
P_C — T_a



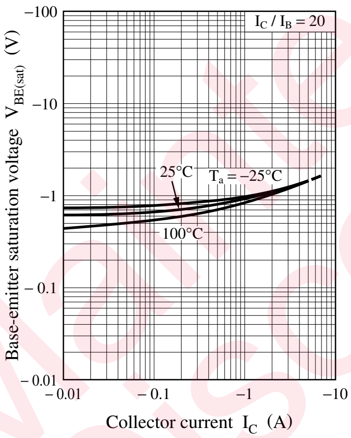
I_C — V_{CE}



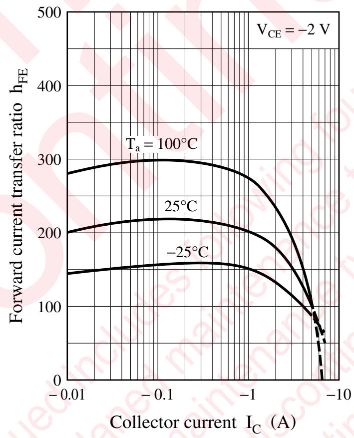
$V_{CE(sat)}$ — I_C



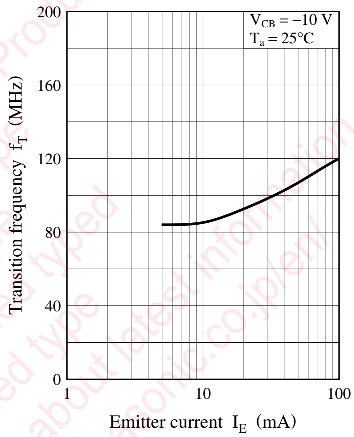
$V_{BE(sat)}$ — I_C



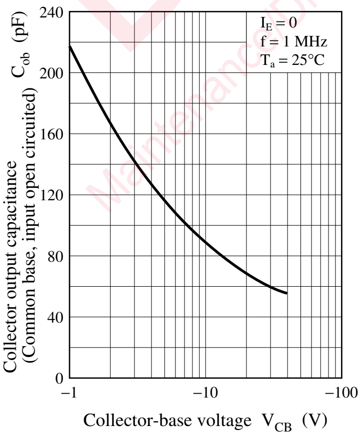
h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}



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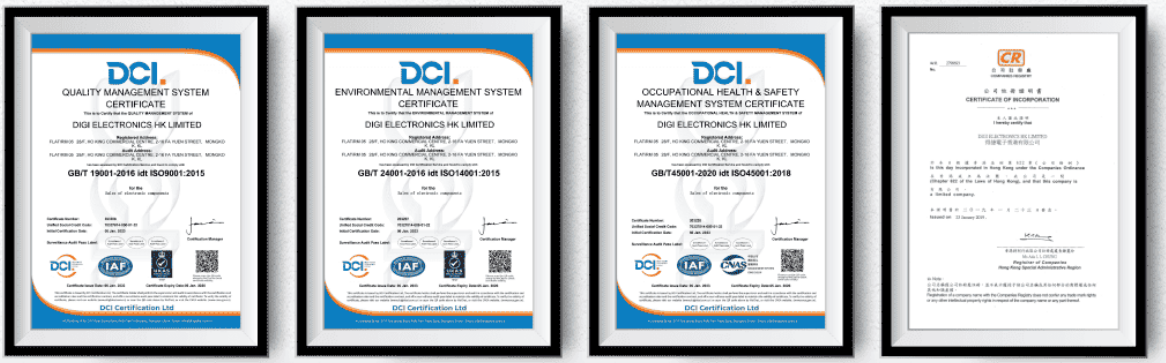

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