2SA21400P Datasheet

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DiGi Electronics Part Number	2SA21400P-DG
Manufacturer	Panasonic Electronic Components
Manufacturer Product Number	2SA21400P
Description	TRANS PNP 180V 1.5A TO220D-A1
Detailed Description	Bipolar (BJT) Transistor PNP 180 V 1.5 A 100MHz 2 W Through Hole TO-220D-A1

Tel: +00 852-30501935

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2SA21400P	Panasonic Electronic Components
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP	1.5 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
180 V	500mV @ 100mA, 1A
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100µA (ICBO)	120 @ 100mA, 5V
Power - Max:	Frequency - Transition:
2 W	100MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-220-3 Full Pack	TO-220D-A1
Base Product Number:	
2SA214	

Environmental & Export classification

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

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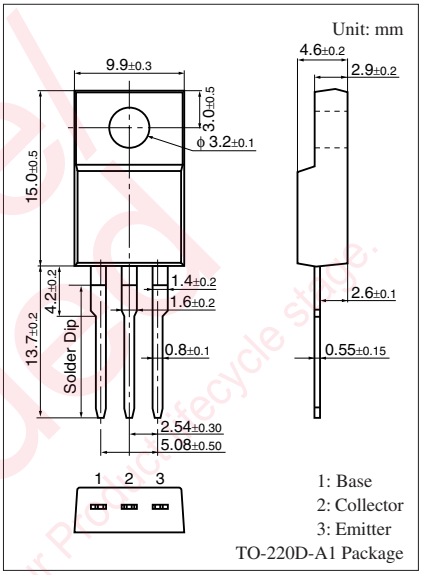
2SA21400P Panasonic Electronic Components TRANS PNP 180V 1.5A TO220D-A1
This product complies with the RoHS Directive (EU 2002/95/EC).

Panasonic

2SA2140

Silicon PNP epitaxial planar type

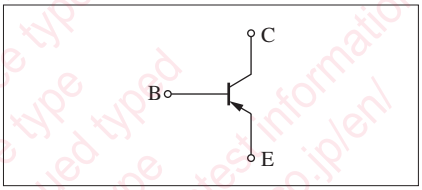
For power amplification
For TV VM circuit



■ Features

- Satisfactory linearity of forward current transfer ratio h_{FE}
- High transition frequency (f_T)
- Full-pack package which can be installed to the heat sink with one screw.

Internal Connection



■ Absolute Maximum Ratings $T_C = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	−180	V
Collector-emitter voltage (Base open)	V_{CEO}	−180	V
Emitter-base voltage (Collector open)	V_{EBO}	−6	V
Collector current	I_C	−1.5	A
Peak collector current	I_{CP}	−3	A
Collector power dissipation	P_C	20	W
$T_a = 25°C$		2.0	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -10$ mA, $I_B = 0$	−180			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -180$ V, $I_E = 0$			−100	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = -6$ V, $I_C = 0$			−100	μA
Forward current transfer ratio *	h_{FE}	$V_{CE} = -5$ V, $I_C = -0.1$ A	60		240	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1$ A, $I_B = -0.1$ A			−0.5	V
Transition frequency	f_T	$V_{CE} = -10$ V, $I_C = -0.2$ A, f = 10 MHz		100		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10$ V, $I_E = 0$, f = 1 MHz		30		pF
Turn-on time	t_{on}	$I_C = -0.4$ A, Resistance loaded		0.1		μs
Storage time	t_{stg}	$I_{B1} = 0.04$ A, $I_{B2} = -0.04$ A		1.0		μs
Fall time	t_f	$V_{CC} = 100$ V		0.1		μs

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

Rank	Q	P
h_{FE}	60 to 140	120 to 240

Maintenance/Discontinued
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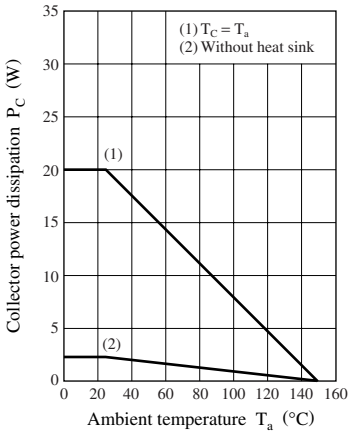
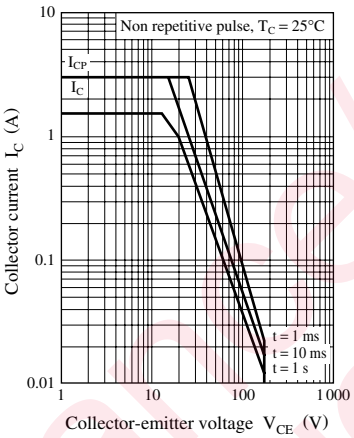
P_C — T_a



Safe operation area



Maintenance/ Discontinued
Maintenance/Discontinued includes following four Product lifecycle stage.
planed maintenance type
maintenance type
planed discontinued typed
discontinued type
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Maintenance/ Discontinued

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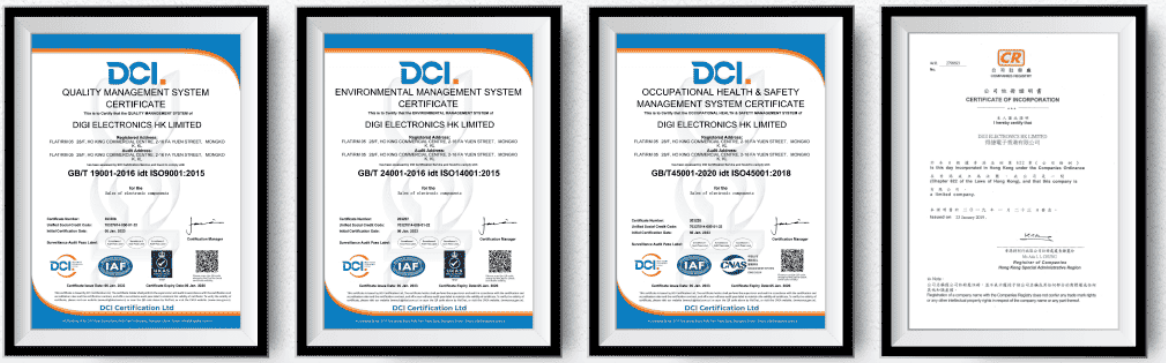

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