2SA11270RA Datasheet

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DiGi Electronics Part Number	2SA11270RA-DG
Manufacturer	Panasonic Electronic Components
Manufacturer Product Number	2SA11270RA
Description	TRANS PNP 55V 0.1A TO92-B1
Detailed Description	Bipolar (BJT) Transistor PNP 55 V 100 mA 200MHz 400 mW Through Hole TO-92-B1

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2SA11270RA	Panasonic Electronic Components
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP	100 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
55 V	600mV @ 10mA, 100mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
1µA	180 @ 2mA, 5V
Power - Max:	Frequency - Transition:
400 mW	200MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-226-3, TO-92-3 (TO-226AA) Formed Leads	TO-92-B1
Base Product Number:	
2SA1127	

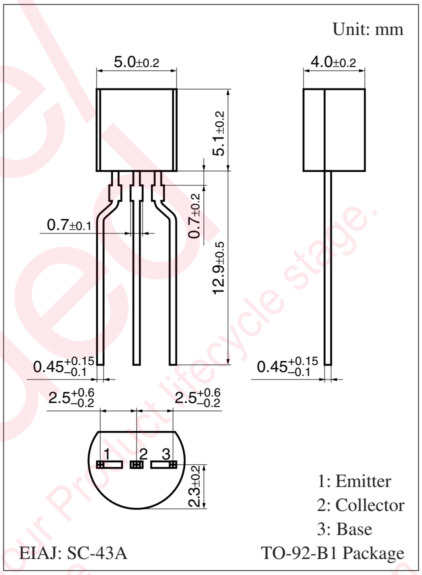
Environmental & Export classification

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

2SA1127

Silicon PNP epitaxial planar type

For low-frequency and low-noise amplification
Complementary to 2SC2634



■ Features

- Low noise voltage NV
- High forward current transfer ratio h_{FE}

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	–60	V
Collector-emitter voltage (Base open)	V_{CEO}	–55	V
Emitter-base voltage (Collector open)	V_{EBO}	–7	V
Collector current	I_C	–100	mA
Peak collector current	I_{CP}	–200	mA
Collector power dissipation	P_C	400	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	–55 to +150	°C

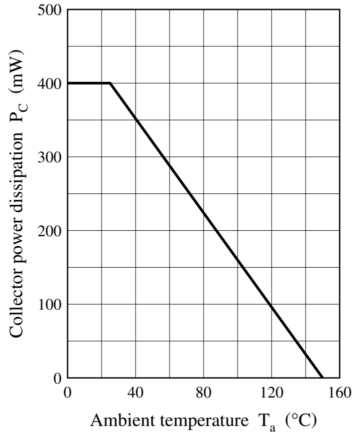
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10$ µA, $I_E = 0$	–60			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -1$ mA, $I_B = 0$	–55			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10$ µA, $I_C = 0$	–7			V
Base-emitter voltage	V_{BE}	$V_{CE} = -1$ V, $I_C = -30$ mA			–1	V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -10$ V, $I_E = 0$		–1	–100	nA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -10$ V, $I_B = 0$		– 0.01	–1.00	µA
Forward current transfer ratio *	h_{FE}	$V_{CE} = -5$ V, $I_C = -2$ mA	180		700	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100$ mA, $I_B = -10$ mA			– 0.6	V
Transition frequency	f_T	$V_{CB} = -5$ V, $I_E = 2$ mA, f = 200 MHz		200		MHz
Noise voltage	NV	$V_{CE} = -10$ V, $I_C = -1$ mA, $G_V = 80$ dB $R_g = 100$ kΩ, Function = FLAT			150	mV

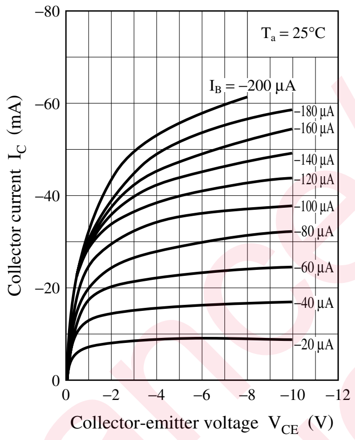
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

Rank	R	S	T
h_{FE}	180 to 360	260 to 520	360 to 700

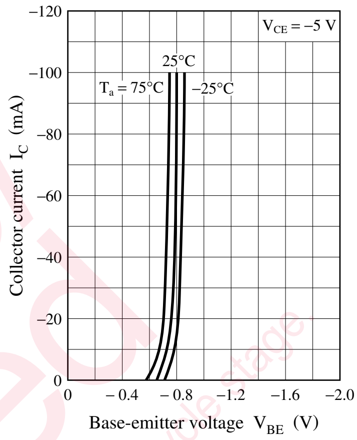
P_C — T_a



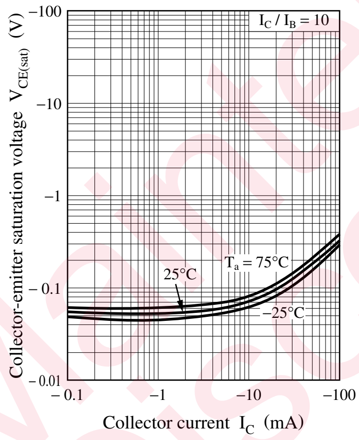
I_C — V_{CE}



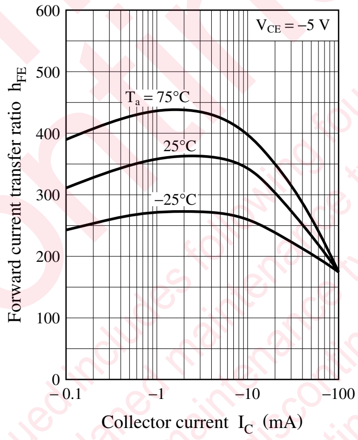
I_C — V_{BE}



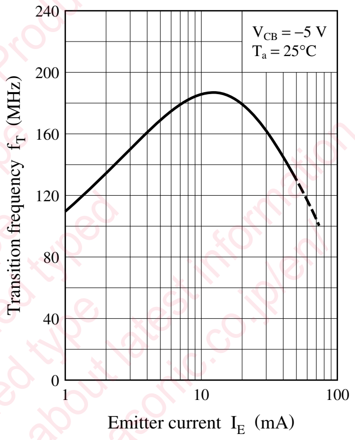
$V_{CE(sat)}$ — I_C



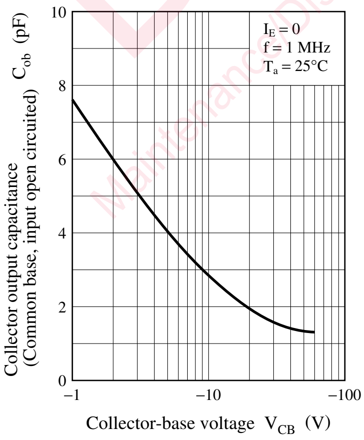
h_{FE} — I_C



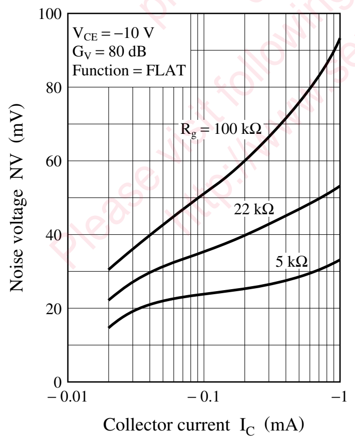
f_T — I_E



C_{ob} — V_{CB}



NV — I_C



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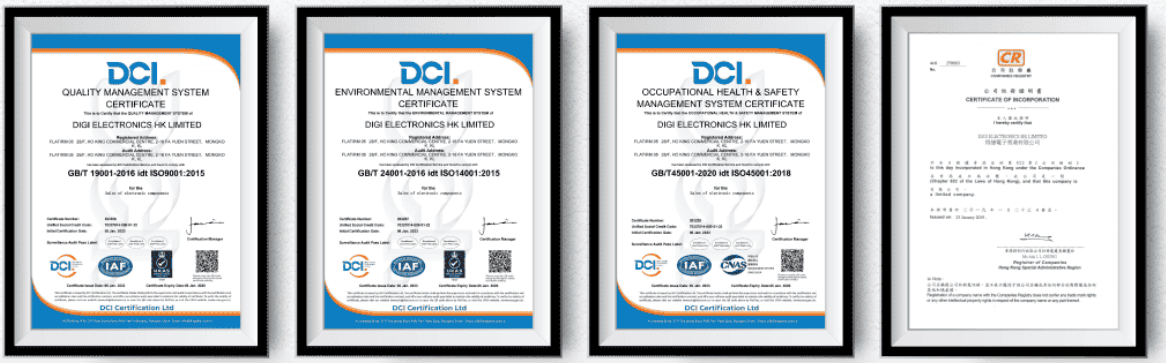

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