

2SA1890GRL Datasheet



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DiGi Electronics Part Number	2SA1890GRL-DG
Manufacturer	Panasonic Electronic Components
Manufacturer Product Number	2SA1890GRL
Description	TRANS PNP 80V 1A MINIP3-F2
Detailed Description	Bipolar (BJT) Transistor PNP 80 V 1 A 120MHz 1 W S urface Mount MiniP3-F2



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Purchase and inquiry

Manufacturer Product Number:

2SA1890GRL

Series:

-

Transistor Type:

PNP

Voltage - Collector Emitter Breakdown (Max):

80 V

Current - Collector Cutoff (Max):

100nA (ICBO)

Power - Max:

1 W

Operating Temperature:

150°C (TJ)

Package / Case:

TO-243AA

Base Product Number:

2SA1890

Manufacturer:

Panasonic Electronic Components

Product Status:

Obsolete

Current - Collector (Ic) (Max):

1 A

Vce Saturation (Max) @ Ib, Ic:

300mV @ 50mA, 500mA

DC Current Gain (hFE) (Min) @ Ic, Vce:

120 @ 100mA, 2V

Frequency - Transition:

120MHz

Mounting Type:

Surface Mount

Supplier Device Package:

MiniP3-F2

Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

HTSUS:

8541.29.0075

ECCN:

EAR99

2SA1890G

Silicon PNP epitaxial planar type

For low-frequency output amplification

Complementary to 2SC5026G

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- High collector-emitter voltage (Base open) V_{CEO}
- Mini power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

■ Package

- Code
MiniP3-F2
- Pin Name
1: Base
2: Collector
3: Emitter

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	-80	V
Collector-emitter voltage (Base open)	V_{CEO}	-80	V
Emitter-base voltage (Collector open)	V_{EBO}	-5	V
Collector current	I_C	-1	A
Peak collector current	I_{CP}	-1.5	A
Collector power dissipation *	P_C	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

■ Marking Symbol: 1Z

Note) *: Printed circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion

■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

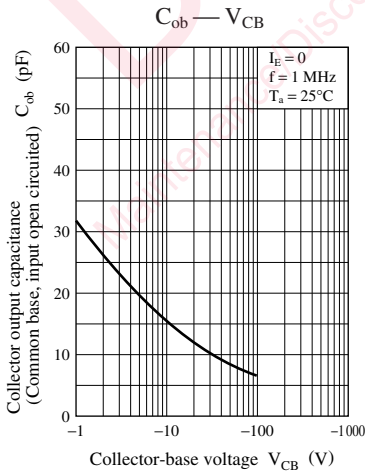
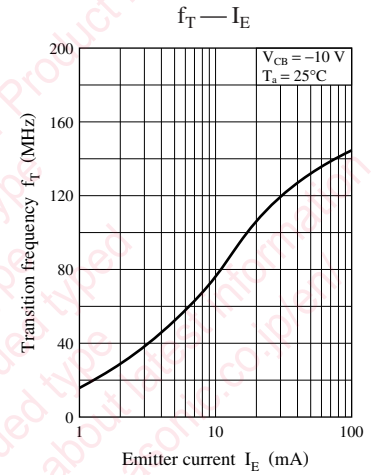
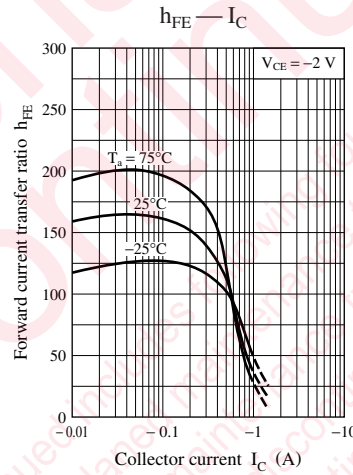
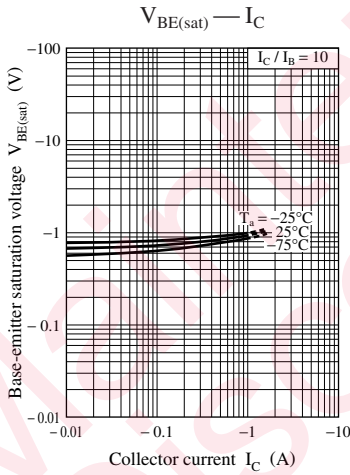
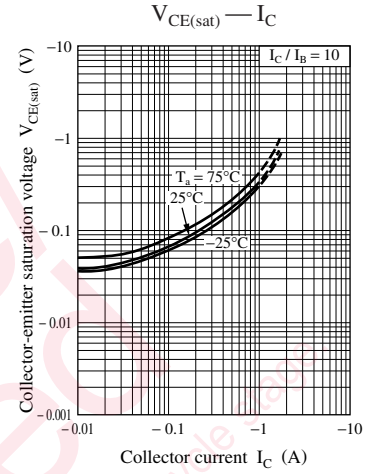
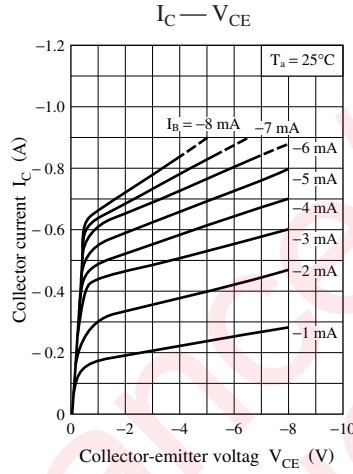
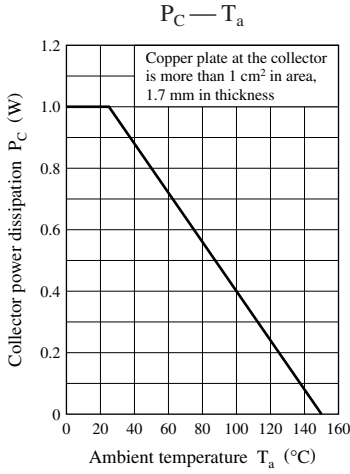
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10 \mu\text{A}, I_E = 0$	-80			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -1 \text{ mA}, I_B = 0$	-80			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10 \mu\text{A}, I_C = 0$	-5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -40 \text{ V}, I_E = 0$			-0.1	μA
Forward current transfer ratio	h_{FE1}^{*2}	$V_{CE} = -2 \text{ V}, I_C = -100 \text{ mA}$	120		340	—
	h_{FE2}^{*1}	$V_{CE} = -2 \text{ V}, I_C = -500 \text{ mA}$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$		-0.2	-0.3	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$		-0.85	-1.2	V
Transition frequency	f_T	$V_{CB} = -10 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$		120		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		15	30	pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

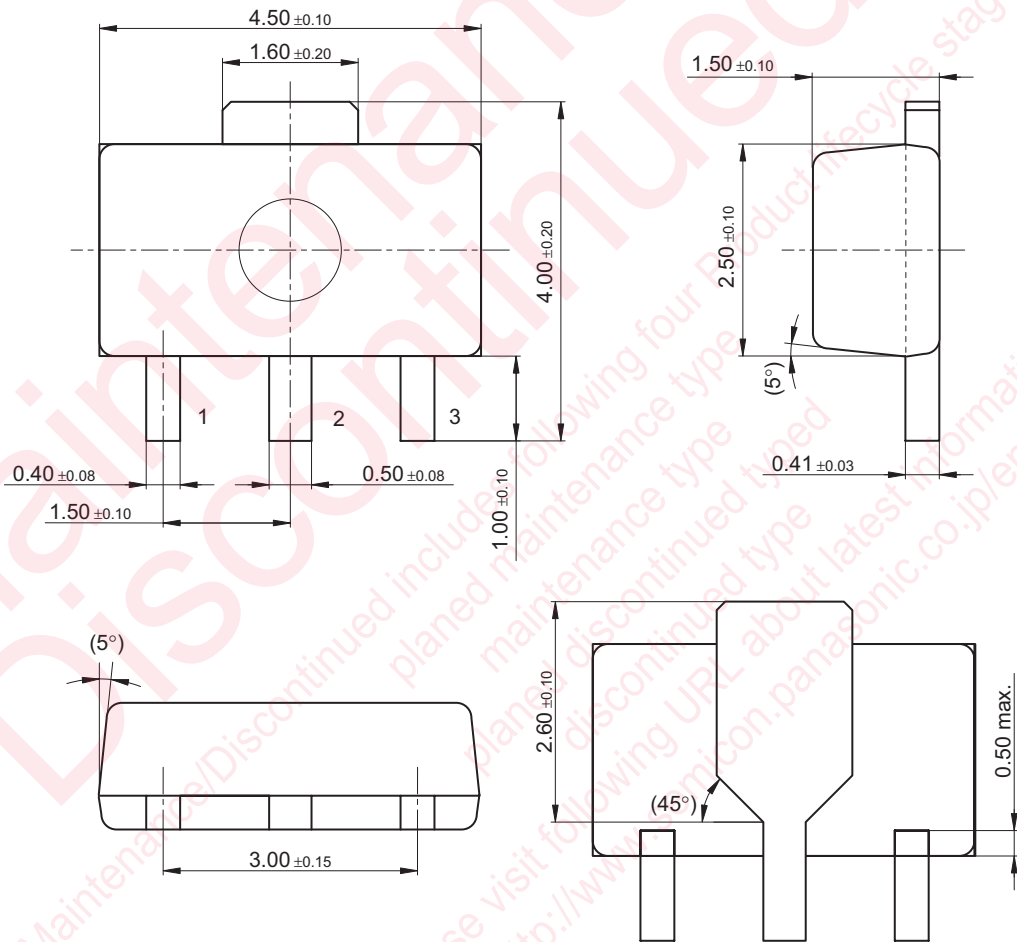
*2: Rank classification

Rank	R	S
h_{FE1}	120 to 240	170 to 340



MiniP3-F2

Unit: mm



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