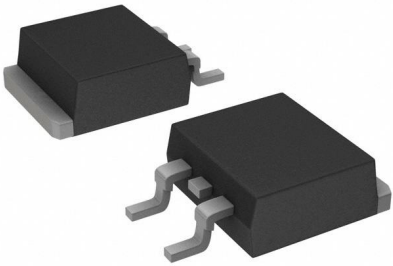


2SB09680RL Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	2SB09680RL-DG
Manufacturer	Panasonic Electronic Components
Manufacturer Product Number	2SB09680RL
Description	TRANS PNP 40V 1.5A U-G2
Detailed Description	Bipolar (BJT) Transistor PNP 40 V 1.5 A 150MHz 10 W Surface Mount U-G2



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

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Purchase and inquiry

Manufacturer Product Number:

2SB09680RL

Series:

-

Transistor Type:

PNP

Voltage - Collector Emitter Breakdown (Max):

40 V

Current - Collector Cutoff (Max):

100µA

Power - Max:

10 W

Operating Temperature:

150°C (TJ)

Package / Case:

TO-252-3, DPAK (2 Leads + Tab), SC-63

Base Product Number:

2SB0968

Manufacturer:

Panasonic Electronic Components

Product Status:

Obsolete

Current - Collector (Ic) (Max):

1.5 A

Vce Saturation (Max) @ Ib, Ic:

1V @ 150mA, 1.5A

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

120 @ 1A, 5V

Frequency - Transition:

150MHz

Mounting Type:

Surface Mount

Supplier Device Package:

U-G2

Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

HTSUS:

8541.29.0075

ECCN:

EAR99

2SB0968 (2SB968)

Silicon PNP epitaxial planar type

For low-frequency output amplification

Complementary to 2SD1295

■ Features

- Possible to solder radiation fin directly to printed circuit board
- High collector-emitter voltage (Base open) V_{CEO}
- Large collector power dissipation P_C

■ Package

- Code
U-G2
- 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}	-50	V
Collector-emitter voltage (Base open)	V_{CEO}	-40	V
Emitter-base voltage (Collector open)	V_{EBO}	-5	V
Collector current	I_C	-1.5	A
Peak collector current	I_{CP}	-3	A
Collector power dissipation ($T_C = 25^\circ\text{C}$)	P_C	10	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

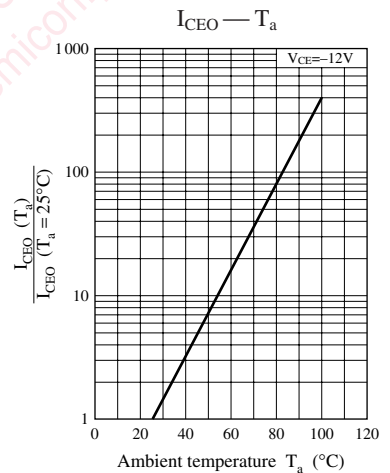
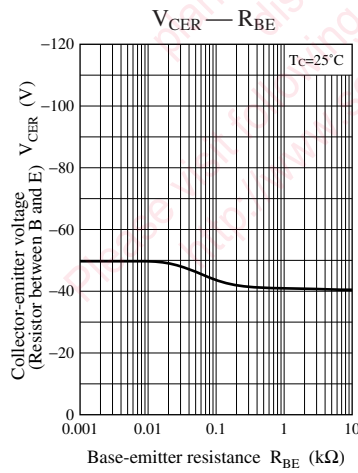
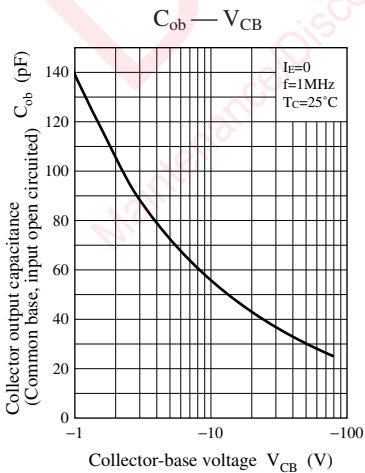
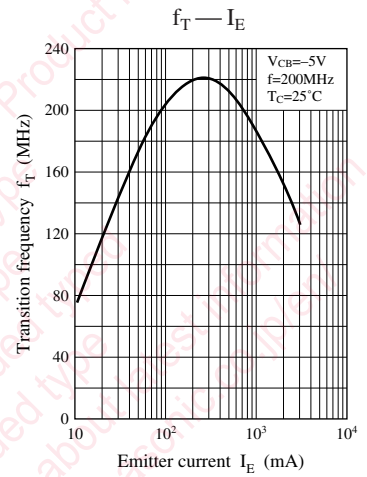
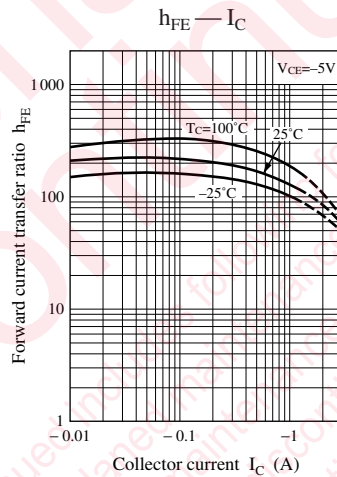
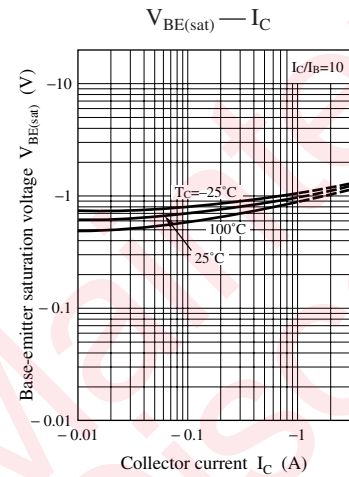
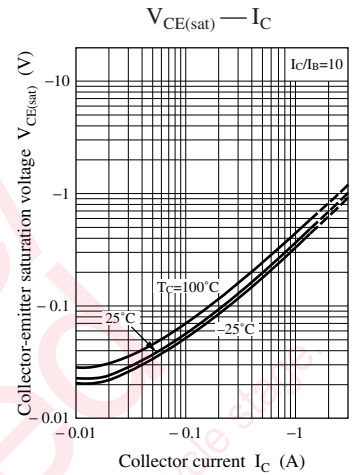
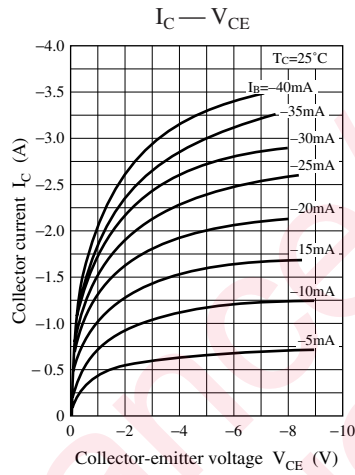
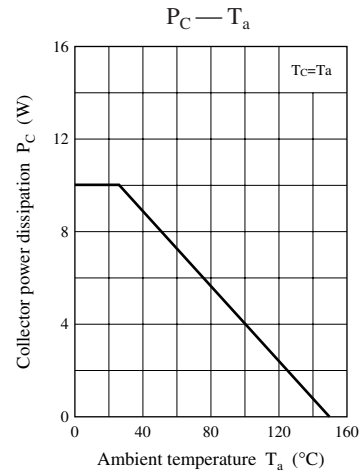
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -1 \text{ mA}, I_E = 0$	-50			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -2 \text{ mA}, I_B = 0$	-40			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -20 \text{ V}, I_E = 0$			-1	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -10 \text{ V}, I_B = 0$			-100	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = -5 \text{ V}, I_C = 0$			-10	μA
Forward current transfer ratio	h_{FE1}^*	$V_{CE} = -5 \text{ V}, I_C = -1 \text{ A}$	80		220	—
	h_{FE2}	$V_{CE} = -5 \text{ V}, I_C = -1 \text{ mA}$	10			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5 \text{ A}, I_B = -0.15 \text{ A}$			-1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -2 \text{ A}, I_B = -0.2 \text{ A}$			-1.5	V
Transition frequency	f_T	$V_{CE} = -5 \text{ V}, I_C = -0.5 \text{ A}, f = 200 \text{ MHz}$		150		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -20 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		45		pF

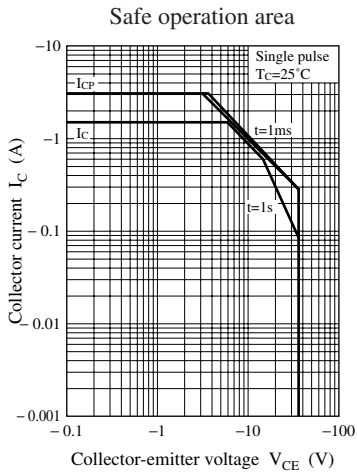
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

Rank	Q	R
h_{FE1}	80 to 160	120 to 220

Note) The part number in the parenthesis shows conventional part number.

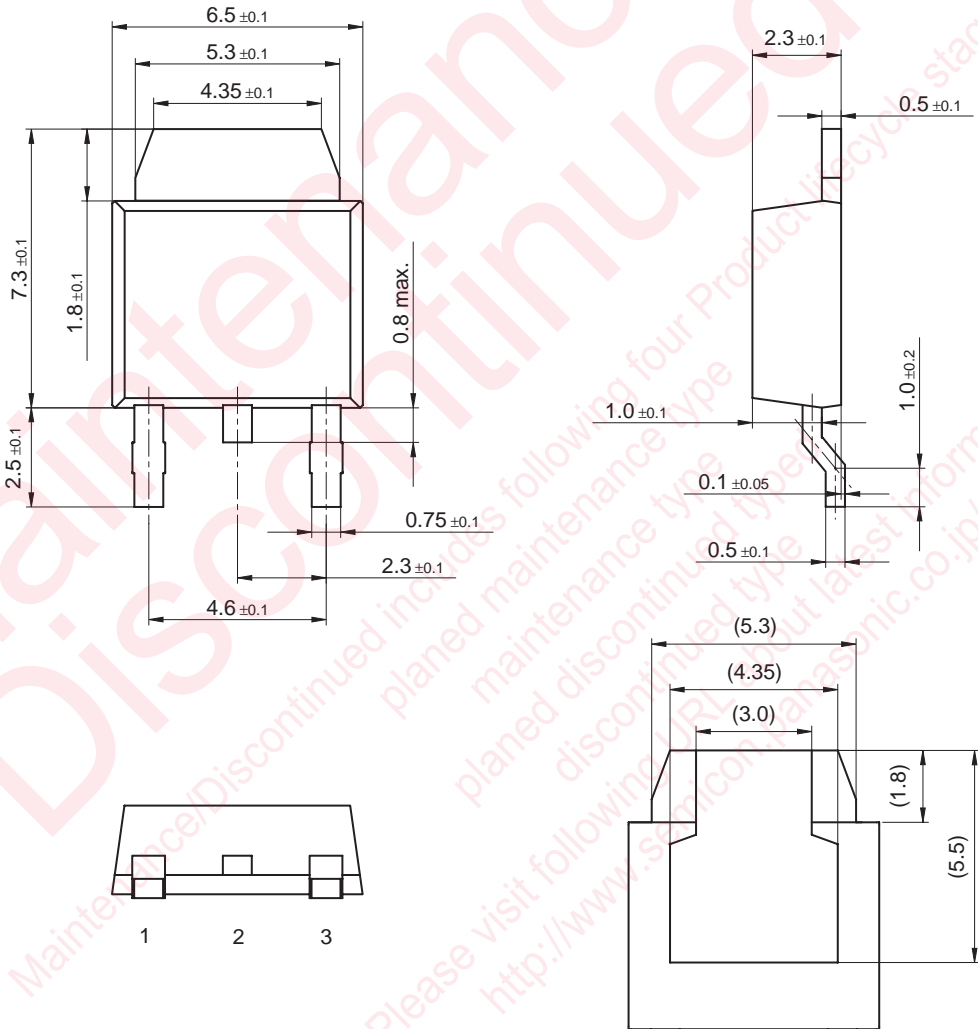




Maintenance/Discontinued includes following four Product lifecycle stage.
planned maintenance type
maintenance type
planned discontinued type
discontinued type
Please visit following URL about latest information.
<http://www.semicon.panasonic.co.jp/en/>

U-G2

Unit: mm



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