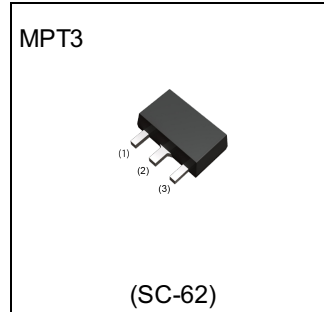


Parameter	Value
V_{CEO}	-400V
I_C	-100mA

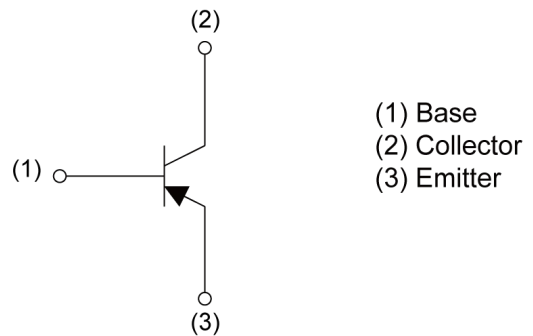
●Outline



●Features

- 1) Complementary NPN Types : 2SCR346P.
- 2) Low $V_{CE(sat)}$
 $V_{CE(sat)} = -400\text{mV (Max.)}$
 $(I_C/I_B = -20\text{mA}/-2\text{mA})$

●Inner circuit



●Application

LOW FREQUENCY AMPLIFIER

●Packaging specifications

Part No.	Package	Package size	Taping code	Reel size (mm)	Tape width (mm)	Basic ordering unit.(pcs)	Marking
2SAR340P	MPT3	4540	T100	180	12	1000	HA

● **Absolute maximum ratings** ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Values	Unit
Collector-base voltage	V_{CBO}	-400	V
Collector-emitter voltage	V_{CEO}	-400	V
Emitter-base voltage	V_{EBO}	-7	V
Collector current	I_{C}	-100	mA
	I_{CP}^{*1}	-200	mA
Base current	I_{B}	-30	mA
Power dissipation	P_{D}^{*2}	0.5	W
	P_{D}^{*3}	2.0	W
Junction temperature	T_{j}	150	$^\circ\text{C}$
Range of storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

● **Electrical characteristics** ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Values			Unit
			Min.	Typ.	Max.	
Collector-base breakdown voltage	BV_{CBO}	$I_{\text{C}} = -100\mu\text{A}$	-400	-	-	V
Collector-emitter breakdown voltage	BV_{CEO}	$I_{\text{C}} = -1\text{mA}$	-400	-	-	V
Emitter-base breakdown voltage	BV_{EBO}	$I_{\text{E}} = -100\mu\text{A}$	-7	-	-	V
Collector cut-off current	I_{CBO}	$V_{\text{CB}} = -400\text{V}$	-	-	-10	μA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}} = -6\text{V}$	-	-	-10	μA
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = -20\text{mA}, I_{\text{B}} = -2\text{mA}$	-	-150	-400	mV
DC current gain	h_{FE}	$V_{\text{CE}} = -10\text{V}, I_{\text{C}} = -10\text{mA}$	82	-	270	-
Output capacitance	C_{ob}	$V_{\text{CB}} = -10\text{V}, I_{\text{E}} = 0\text{A}, f = 1\text{MHz}$	-	15	-	pF

h_{FE} values are classified as follows :

rank	P	Q	-	-	-
h_{FE}	82 - 180	120 - 270	-	-	-

*1 $P_w=10\text{ms}$ Single Pulse

*2 Each terminal mounted on a reference land.

*3 Mounted on a ceramic board.(40×40×0.7mm)

● Electrical characteristic curves ($T_a = 25^\circ\text{C}$)

Fig.1 Grounded Emitter Propagation Characteristics

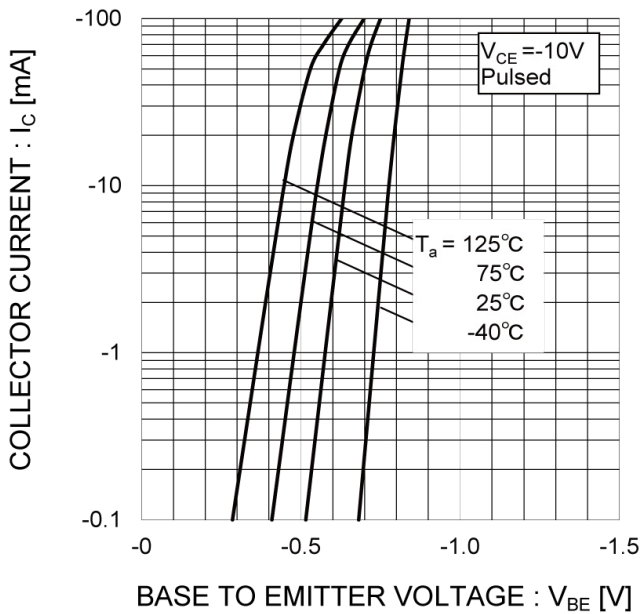


Fig.2 Typical Output Characteristics

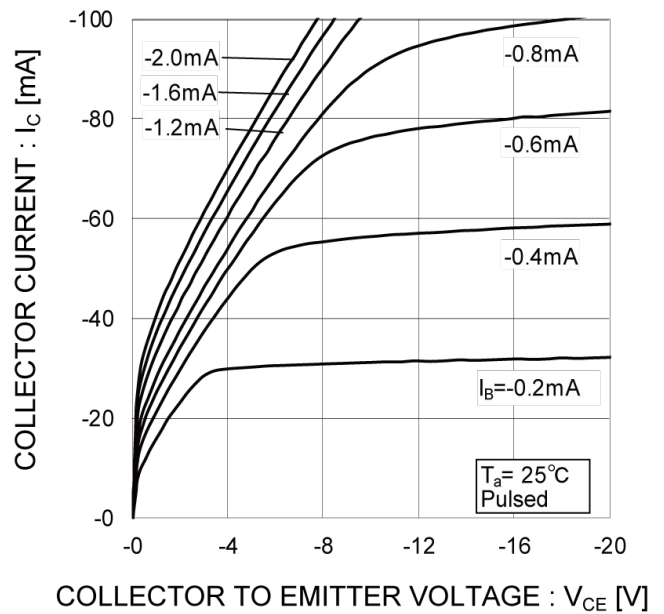


Fig.3 DC Current Gain vs. Collector Current(I)

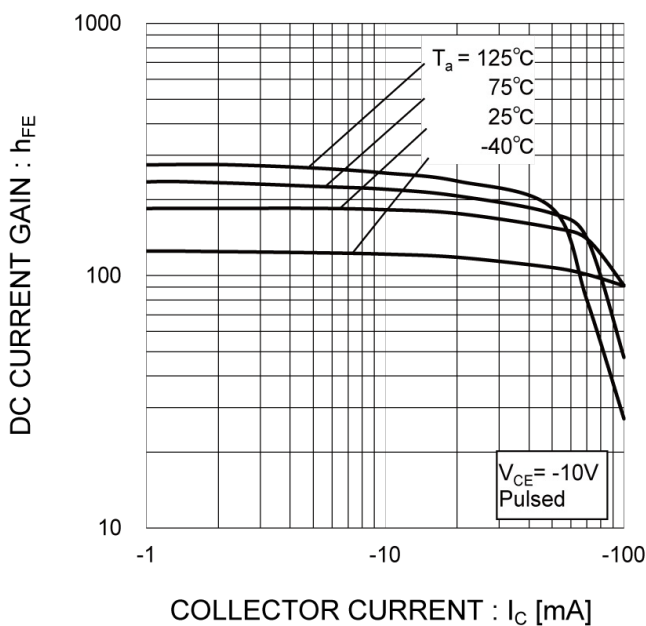
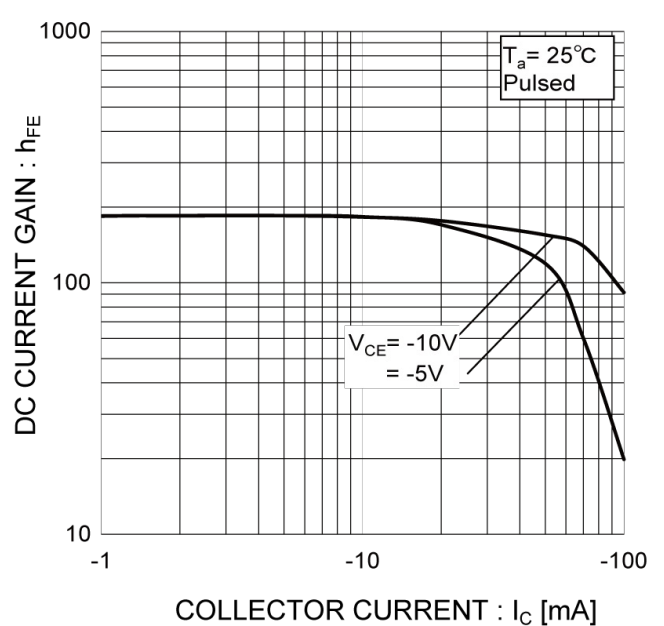


Fig.4 DC Current Gain vs. Collector Current(II)



● Electrical characteristic curves ($T_a = 25^\circ\text{C}$)

Fig.5 Collector-Emitter Saturation Voltage vs. Collector Current(I)

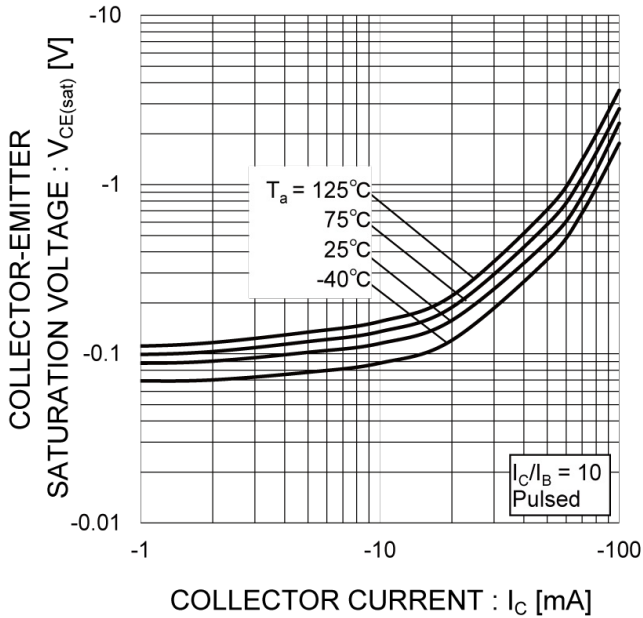


Fig.6 Collector-Emitter Saturation Voltage vs. Collector Current(II)

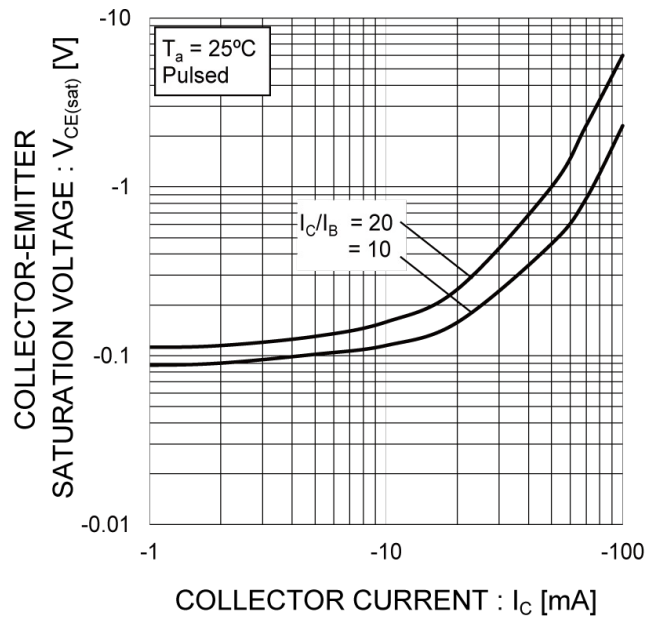


Fig.7 Base-Emitter Saturation Voltage vs. Collector Current

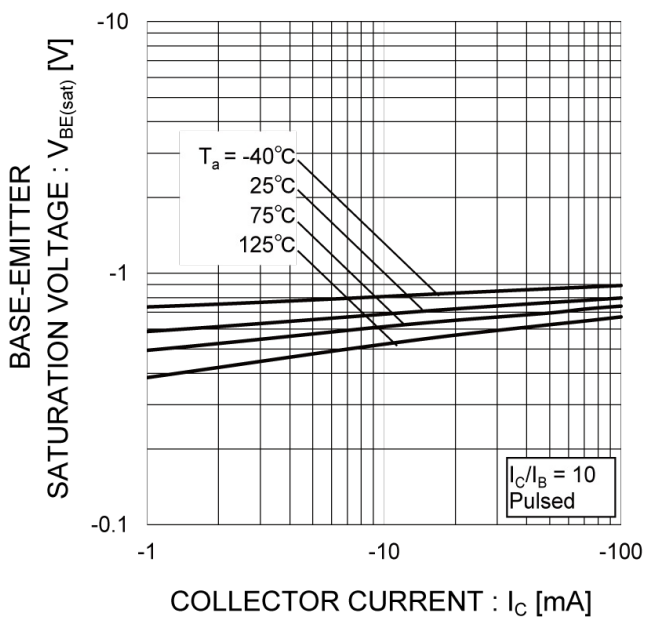
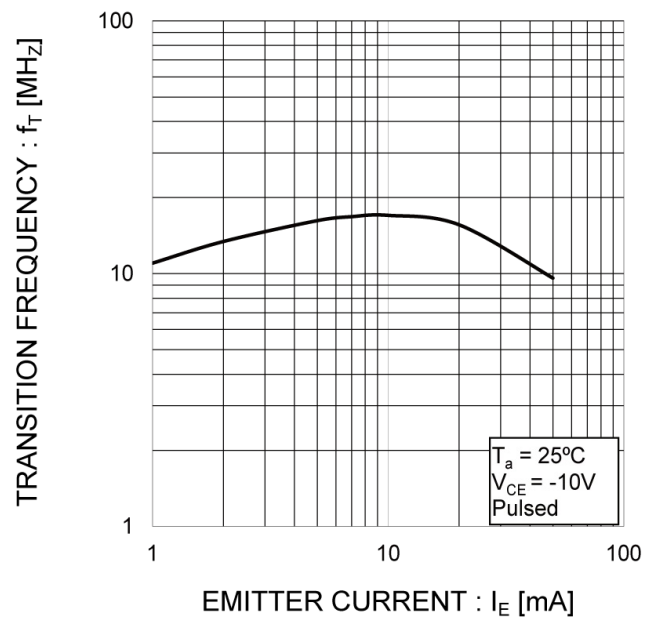


Fig.8 Gain Bandwidth Product vs. Emitter Current



●Electrical characteristic curves($T_a = 25^\circ\text{C}$)

Fig.9 Emitter input capacitance vs.
Emitter=Base Voltage
Collector output capacitance vs.
Collector-Base Voltage

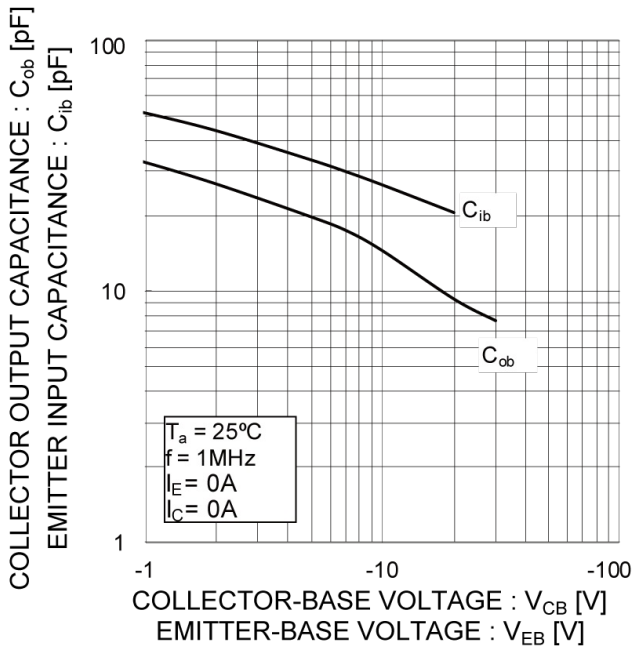
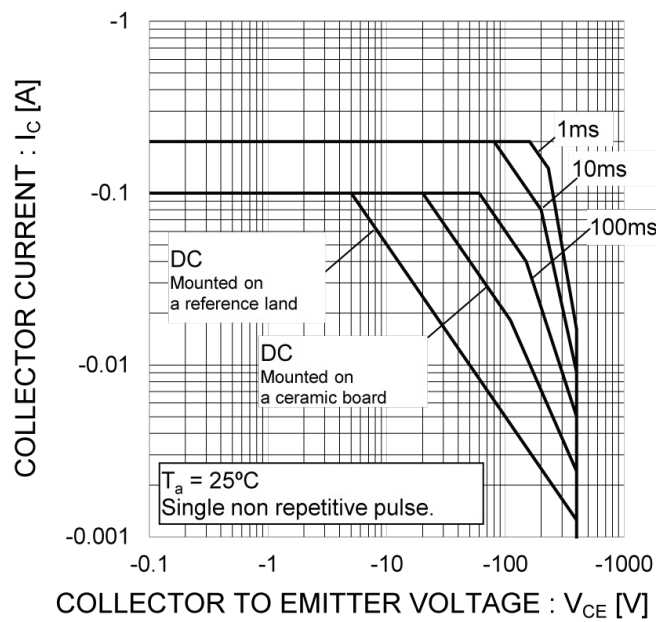
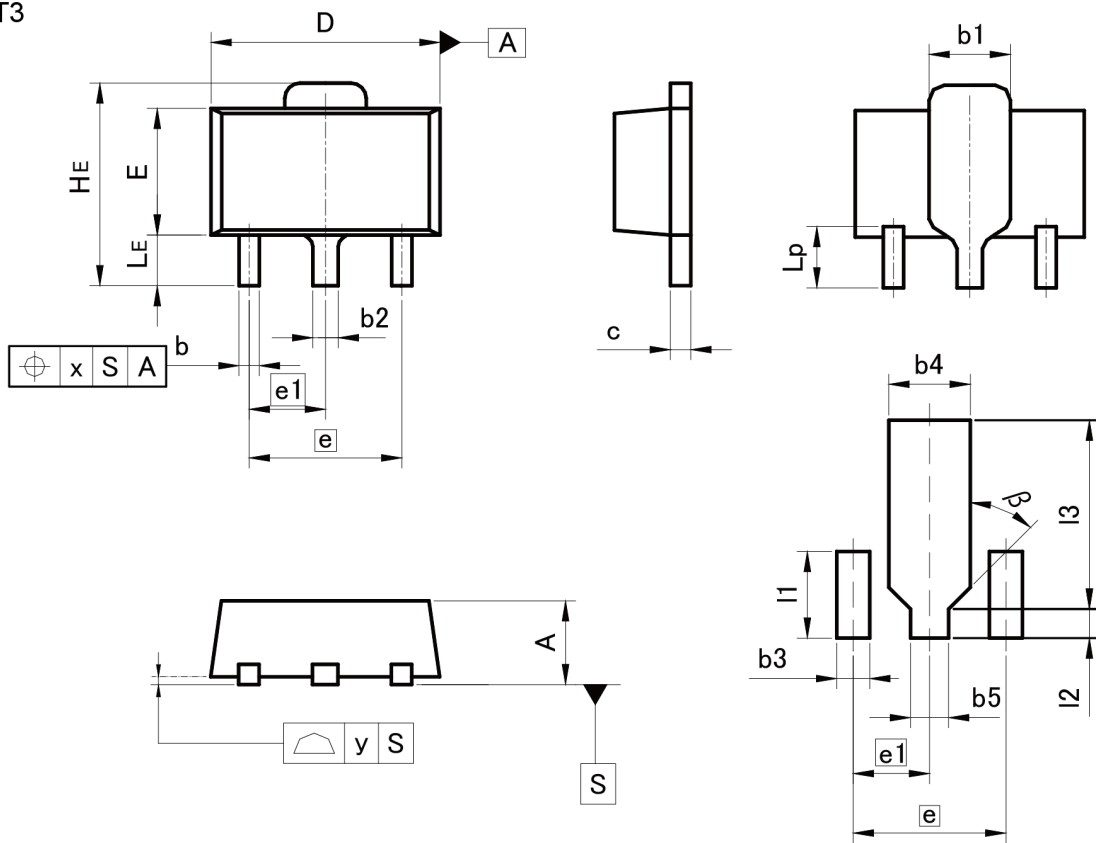


Fig.10 Safe Operating Area



●Dimensions

MPT3



Pattern of terminal position areas
[Not a recommended pattern of soldering pads]

DIM	MILIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.40	1.50	0.055	0.059
b	0.30	0.50	0.012	0.020
b1	1.50	1.70	0.059	0.067
b2	0.40	0.60	0.016	0.024
c	0.35	0.50	0.014	0.020
D	4.40	4.70	0.173	0.185
E	2.40	2.70	0.094	0.106
e	3.00		0.118	
e1	1.50		0.059	
HE	3.70	4.30	0.146	0.169
LE	0.80	1.20	0.031	0.047
Lp	1.01	1.41	0.040	0.056
x	-	0.15	-	0.006
y	-	0.10	-	0.004

DIM	MILIMETERS		INCHES	
	MIN	MAX	MIN	MAX
b3	-	0.65	-	0.026
b4	-	1.70	-	0.067
b5	-	0.75	-	0.030
l1	-	1.71	-	0.067
l2	-	0.58	-	0.023
l3	-	3.72	-	0.146
β	45°		45°	

Dimension in mm/inches

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2SAR340P - Web Page

[Distribution Inventory](#)

Part Number	2SAR340P
Package	MPT3
Unit Quantity	1000
Minimum Package Quantity	1000
Packing Type	Taping
Constitution Materials List	inquiry
RoHS	Yes

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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[2SAR340PT100P](#) [2SAR340PT100Q](#)



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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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