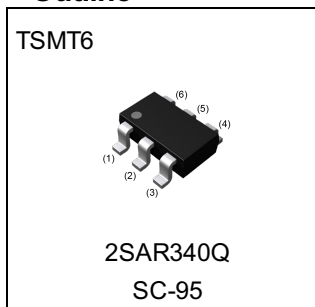


Parameter	Value
$V_{CEO}$	-400V
$I_C$	-100mA

### ●Outline

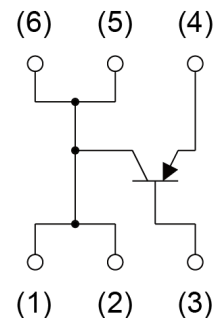


### ●Features

- 1) Complementary NPN Types : 2SCR341Q.
- 2) Low  $V_{CE(sat)}$   
 $V_{CE(sat)} = -400mV(\text{Max.})$   
 $(I_C/I_B = -20mA/-2mA)$

### ●Inner circuit

- (1) Collector
- (2) Collector
- (3) Base
- (4) Emitter
- (5) Collector
- (6) Collector



### ●Application

LOW FREQUENCY AMPLIFIER

### ●Packaging specifications

Part No.	Package	Package size	Taping code	Reel size (mm)	Tape width (mm)	Basic ordering unit.(pcs)	Marking
2SAR340Q	TSMT6	2928	TR	180	8	3000	HA

### ●Notice

Pay attention to electric discharge with high voltage because of fine pin pitch.

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

Parameter	Symbol	Values	Unit
Collector-base voltage	$V_{\text{CBO}}$	-400	V
Collector-emitter voltage	$V_{\text{CEO}}$	-400	V
Emitter-base voltage	$V_{\text{EBO}}$	-7	V
Collector current	$I_{\text{C}}$	-100	mA
	$I_{\text{CP}}^{*1}$	-200	mA
Base current	$I_{\text{B}}$	-30	mA
Power dissipation	$P_{\text{D}}^{*2}$	0.5	W
	$P_{\text{D}}^{*3}$	1.25	W
Junction temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Range of storage temperature	$T_{\text{stg}}$	-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	$BV_{\text{CBO}}$	$I_{\text{C}} = -100\mu\text{A}$	-400	-	-	V
Collector-emitter breakdown voltage	$BV_{\text{CEO}}$	$I_{\text{C}} = -1\text{mA}$	-400	-	-	V
Emitter-base breakdown voltage	$BV_{\text{EBO}}$	$I_{\text{E}} = -100\mu\text{A}$	-7	-	-	V
Collector cut-off current	$I_{\text{CBO}}$	$V_{\text{CB}} = -400\text{V}$	-	-	-10	$\mu\text{A}$
Emitter cut-off current	$I_{\text{EBO}}$	$V_{\text{EB}} = -6\text{V}$	-	-	-10	$\mu\text{A}$
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	$h_{\text{FE}}$	$V_{\text{CE}} = -10\text{V}, I_{\text{C}} = -10\text{mA}$	82	-	270	-
Output capacitance	$C_{\text{ob}}$	$V_{\text{CB}} = -10\text{V}, I_{\text{E}} = 0\text{A}, f = 1\text{MHz}$	-	15	-	pF

$h_{\text{FE}}$  values are classified as follows :

rank	P	Q	-	-	-
$h_{\text{FE}}$	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(25×25×0.8 mm)

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

Fig.1 Grounded Emitter Propagation Characteristics

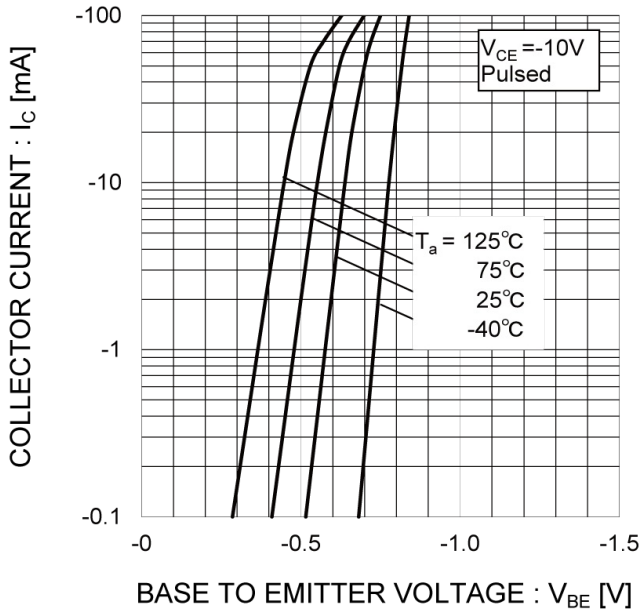


Fig.2 Typical Output Characteristics

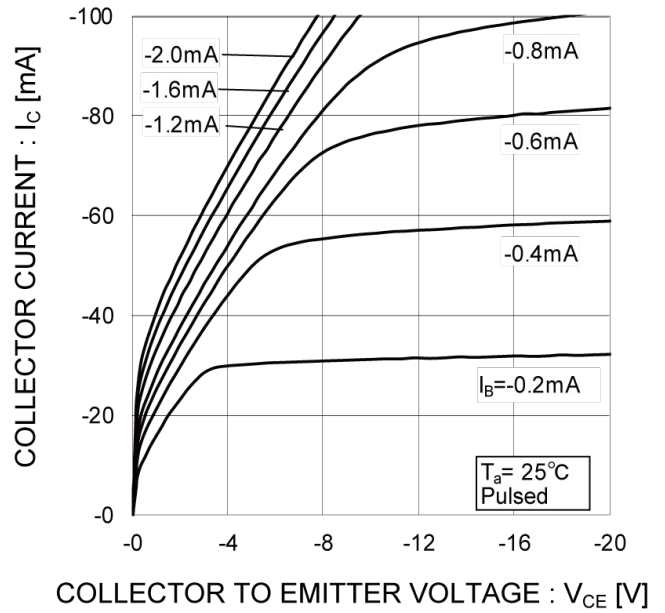


Fig.3 DC Current Gain vs. Collector Current(I)

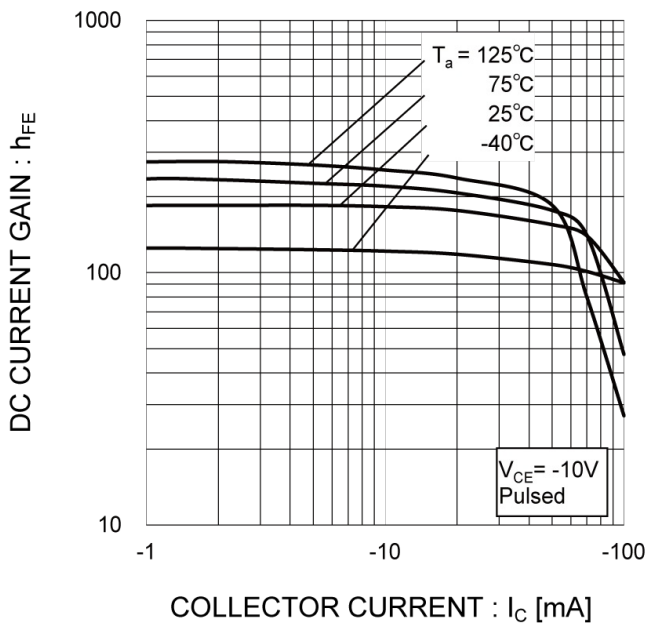
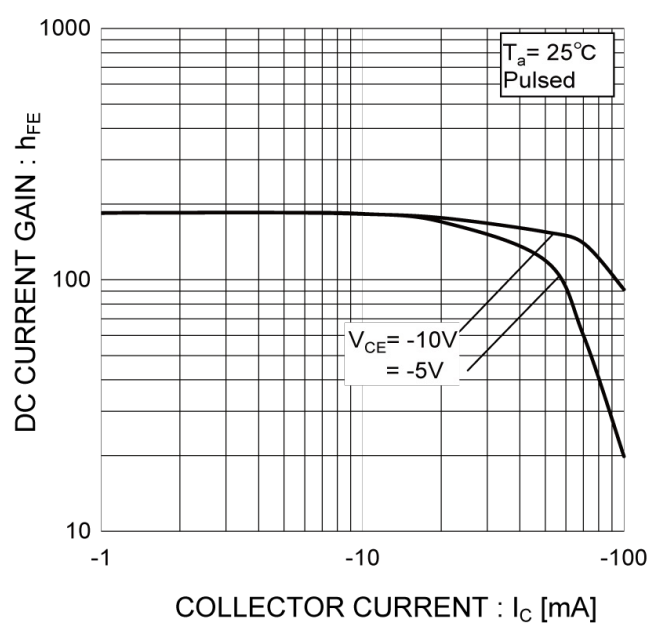


Fig.4 DC Current Gain vs. Collector Current(II)



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

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

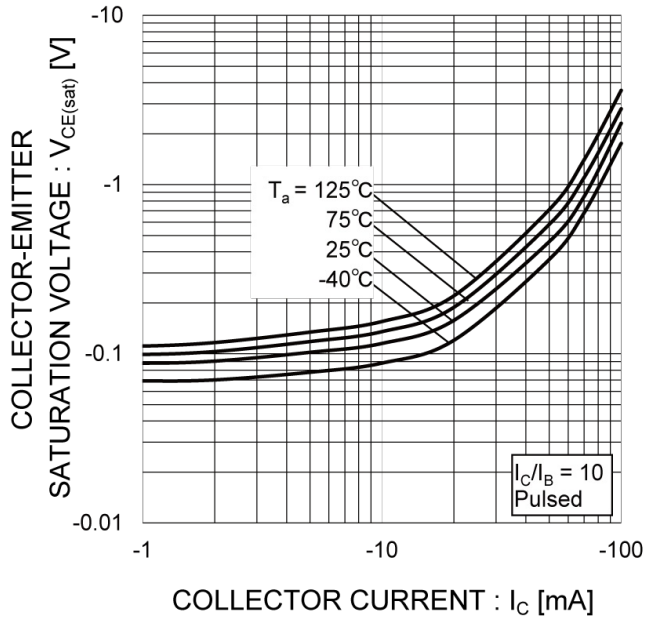


Fig.6 Collector-Emitter Saturation Voltage vs. Collector Current(II)

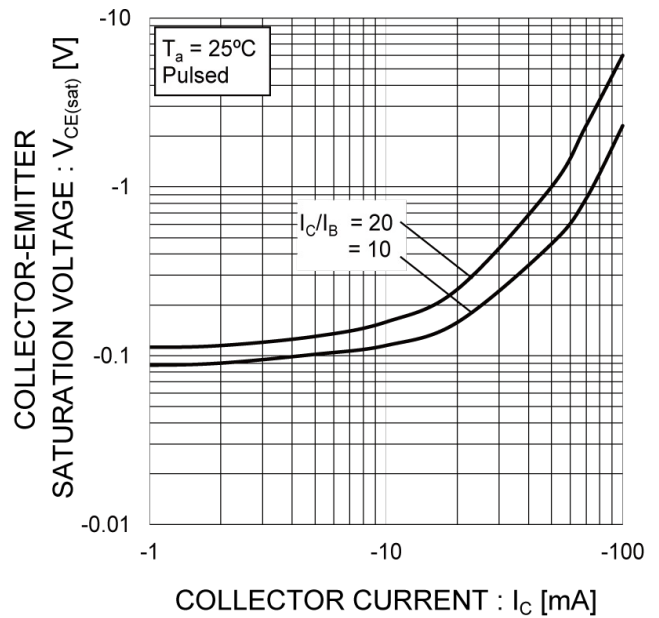


Fig.7 Base-Emitter Saturation Voltage vs. Collector Current

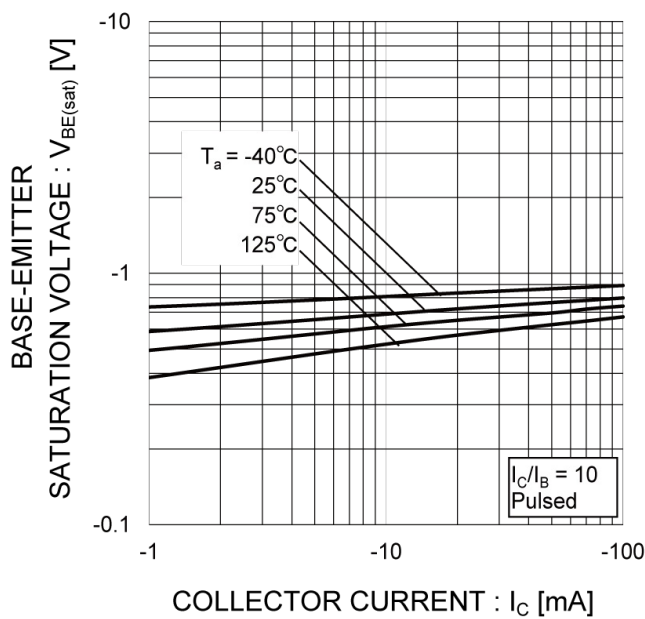
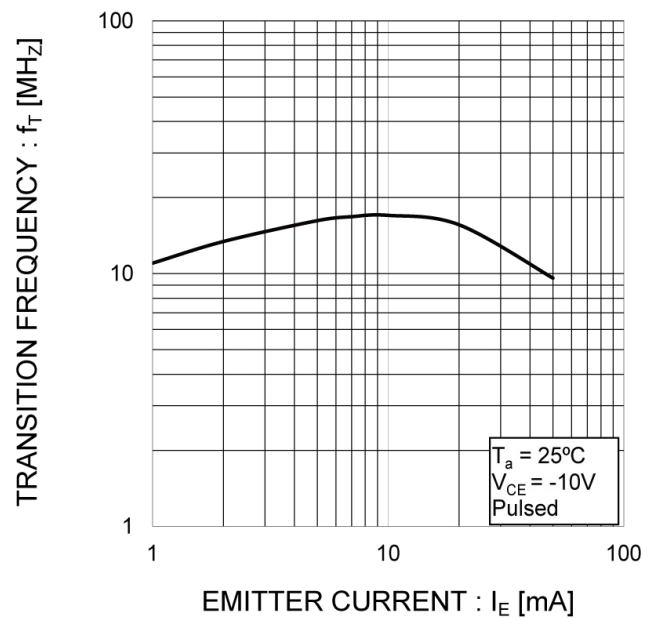


Fig.8 Gain Bandwidth Product vs. Emitter Current



● 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

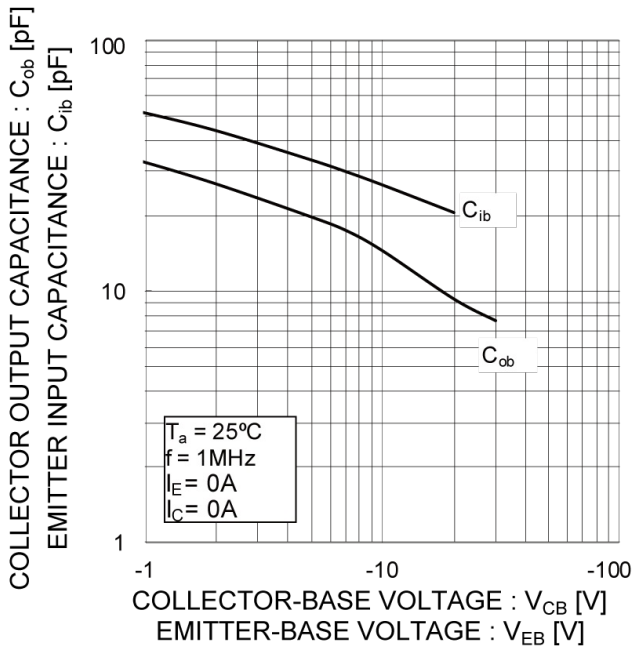
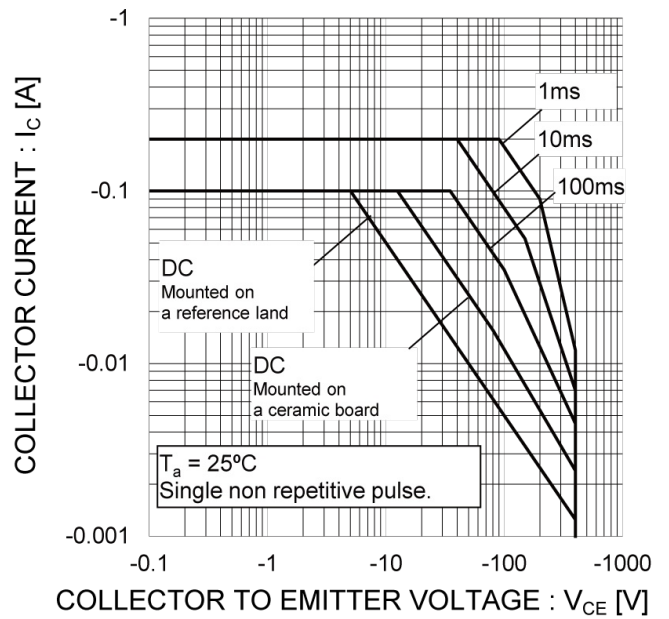


Fig.10 Safe Operating Area





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## 2SAR340Q - Web Page

[Distribution Inventory](#)

Part Number	2SAR340Q
Package	TSMT6
Unit Quantity	3000
Minimum Package Quantity	3000
Packing Type	Taping
Constitution Materials List	inquiry
RoHS	Yes