2SCR341Q

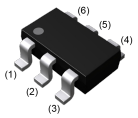
NPN 100mA 400V Middle Power Transistor

Datasheet

Parameter	Value
V_{CEO}	400V
I_C	100mA

●Outline

TSMT6



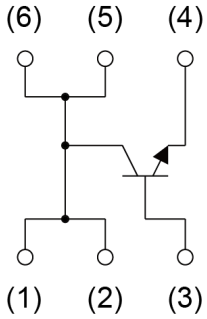
2SCR341Q
SC-95

●Features

1) Complementary PNP Types : 2SAR340Q.
2) Low $V_{CE(sat)}$
   $V_{CE(sat)}$=300mV(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
2SCR341Q	TSMT6	2928	TR	180	8	3000	HJ

●Notice

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

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●Absolute maximum ratings (T_a = 25°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	1.25	W
Junction temperature	T_j	150	℃
Range of storage temperature	T_{stg}	-55 to +150	℃

●Electrical characteristics (T_a = 25°C)

Parameter	Symbol	Conditions	Values			Unit
			Min.	Typ.	Max.	
Collector-base breakdown voltage	BV_{CBO}	I_C = 100μA	400	-	-	V
Collector-emitter breakdown voltage	BV_{CEO}	I_C = 1mA	400	-	-	V
Emitter-base breakdown voltage	BV_{EBO}	I_E = 100μA	7	-	-	V
Collector cut-off current	I_{CBO}	V_{CB} = 400V	-	-	10	μA
Emitter cut-off current	I_{EBO}	V_{EB} = 6V	-	-	10	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 20mA, I_B = 2mA	-	100	300	mV
DC current gain	h_{FE}	V_{CE} = 10V, I_C = 10mA	82	-	270	-
Output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0A, f = 1MHz	-	6	-	pF

hFE values are calssified as follows :

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

*1 Pw=10ms Single Pulse

*2 Each terminal mounted on a reference land.

*3 Mounted on a ceramic board(25×25×0.8 mm)

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●Electrical characteristic curves(T_a = 25°C)

Fig.1 Grounded Emitter Propagation Characteristics

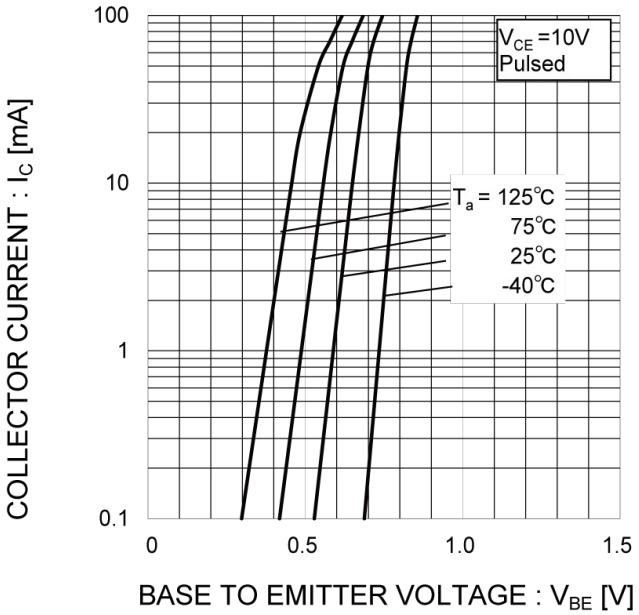


Fig.2 Typical Output Characteristics

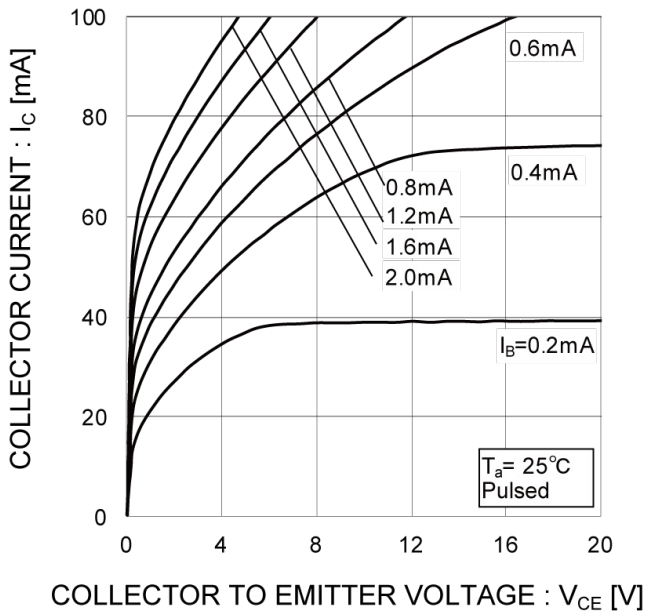


Fig.3 DC Current Gain vs. Collector Current(I)

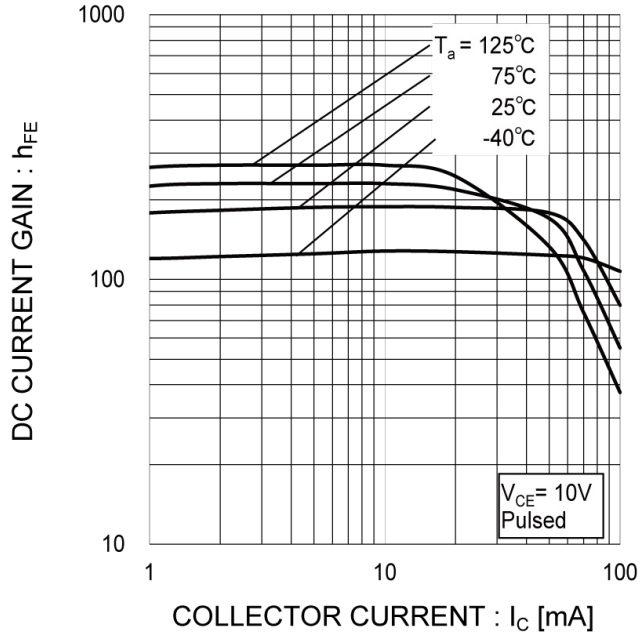
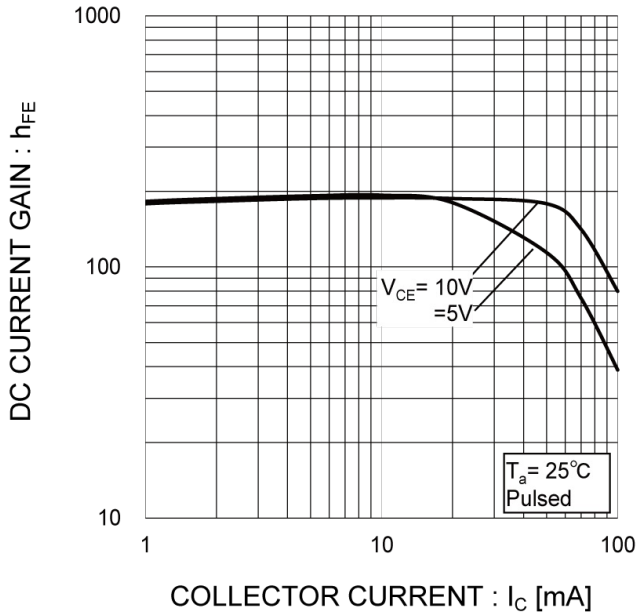


Fig.4 DC Current Gain vs. Collector Current(II)



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●Electrical characteristic curves(T_a = 25°C)

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

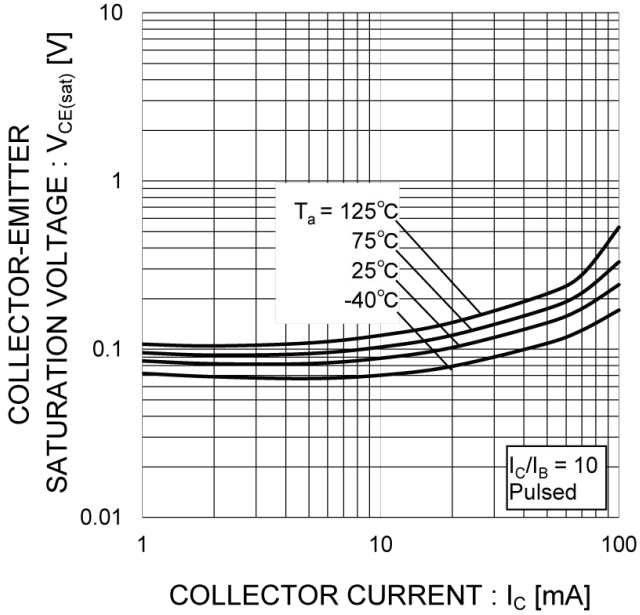


Fig.6 Collector-Emitter Saturation Voltage vs. Collector Current(II)

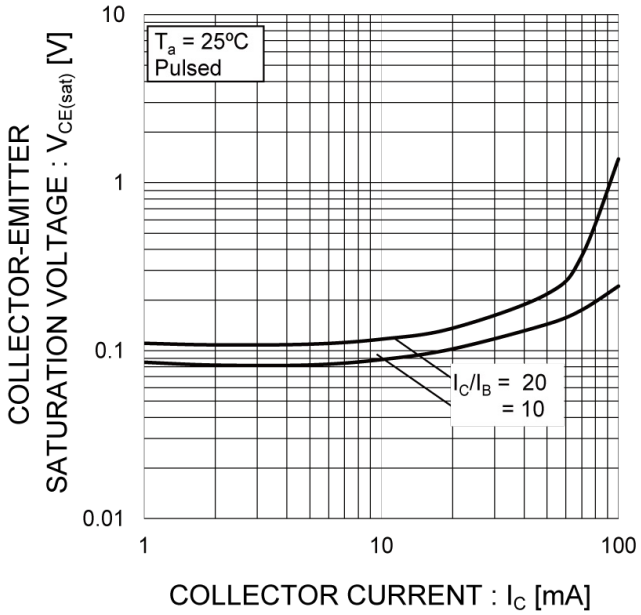


Fig.7 Base-Emitter Saturation Voltage vs. Collector Current

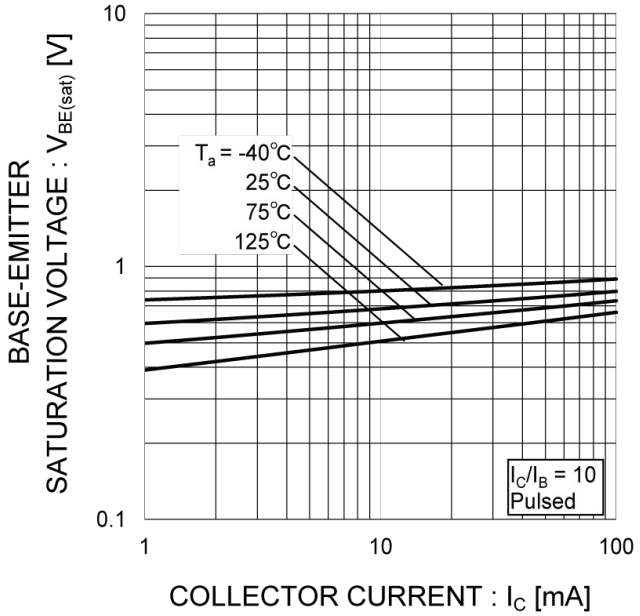
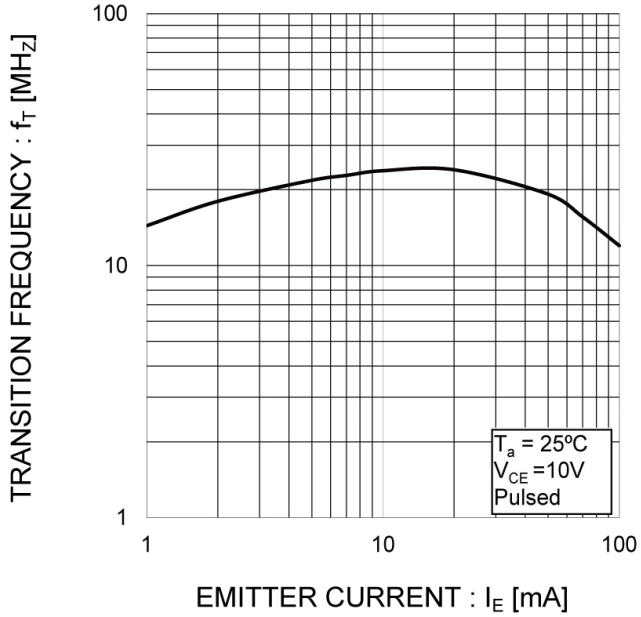


Fig.8 Emitter input capacitance vs. Emitter



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●Electrical characteristic curves(T_a = 25°C)

Fig.9 Emitter input capacitance vs. Emitter

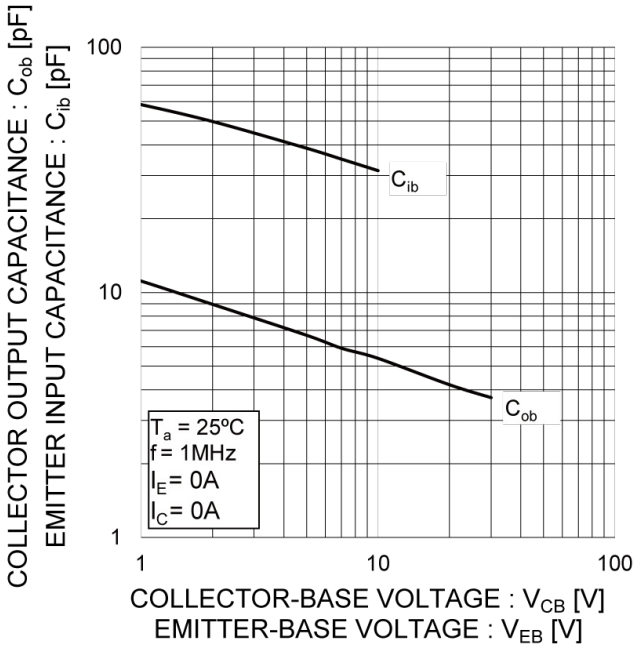
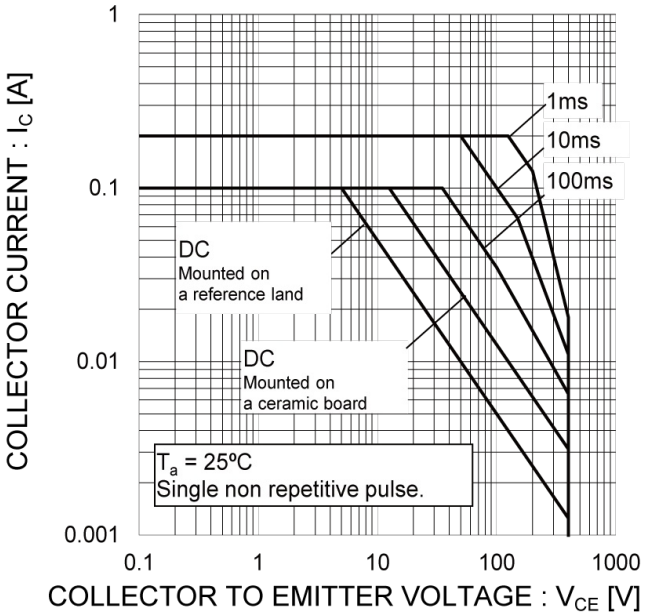


Fig.10 Safe Operating Area



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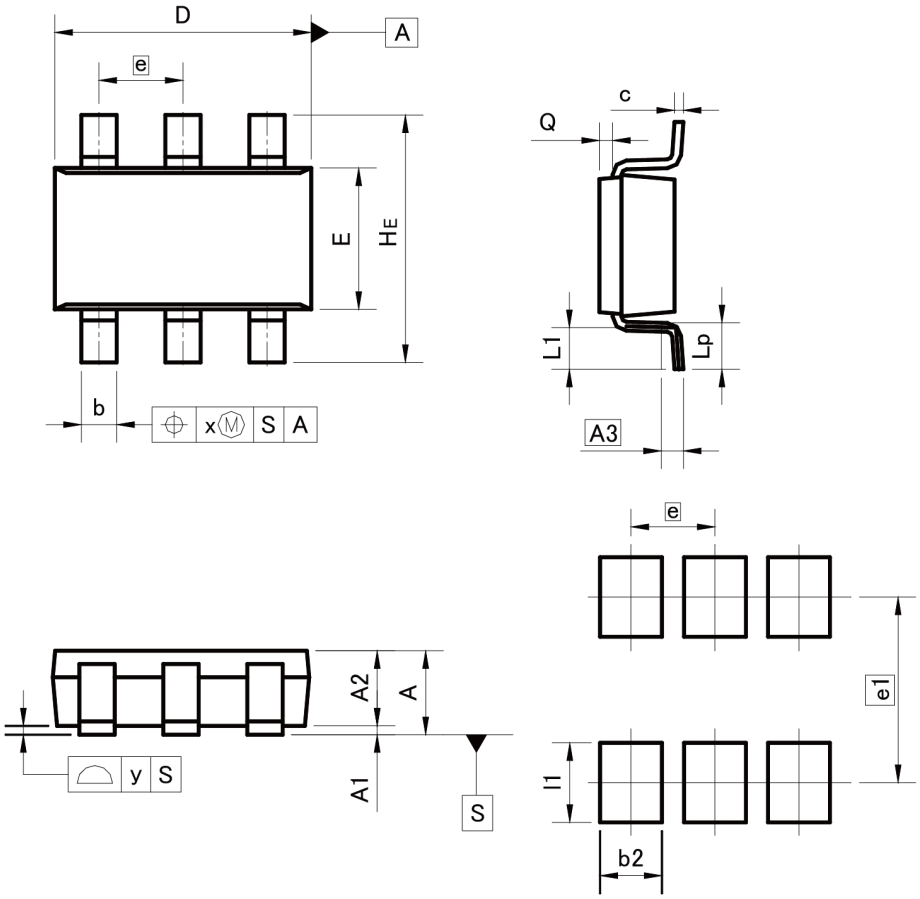
●Dimensions

TSMT6



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

DIM	MILIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	–	1.00	–	0.039
A1	0.00	0.10	0.000	0.004
A2	0.75	0.95	0.030	0.037
A3	0.25		0.010	
b	0.35	0.50	0.014	0.020
c	0.10	0.26	0.004	0.010
D	2.80	3.00	0.110	0.118
E	1.50	1.80	0.059	0.071
e	0.95		0.037	
HE	2.60	3.00	0.102	0.118
L1	0.30	0.60	0.012	0.024
Lp	0.40	0.70	0.016	0.028
Q	0.05	0.25	0.002	0.010
x	–	0.20	–	0.008
y	–	0.10	–	0.004

DIM	MILIMETERS		INCHES	
	MIN	MAX	MIN	MAX
b2		0.70	–	0.028
e1	2.10		0.083	
l1	–	0.90	–	0.035

Dimension in mm/inches

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