

2SC1383, 2SC1384

Silicon NPN epitaxial planer type

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-54151736
 勝特力电子(深圳) 86-755-83298787
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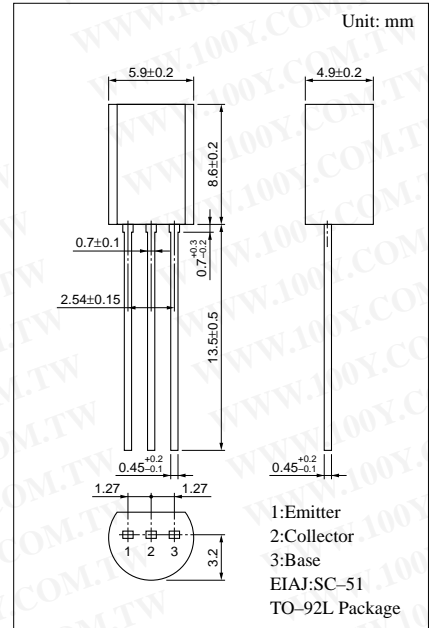
For low-frequency power amplification and driver amplification
 Complementary to 2SA683 and 2SA684

Features

- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- Complementary pair with 2SA683 and 2SA684.

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V _{CBO}	30	V
2SC1383		60	
Collector to emitter voltage	V _{CEO}	25	V
2SC1384		50	
Emitter to base voltage	V _{EBO}	5	V
Peak collector current	I _{CP}	1.5	A
Collector current	I _C	1	A
Collector power dissipation	P _C	1	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 ~ +150	°C



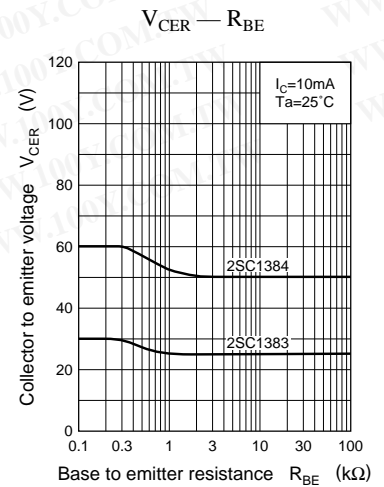
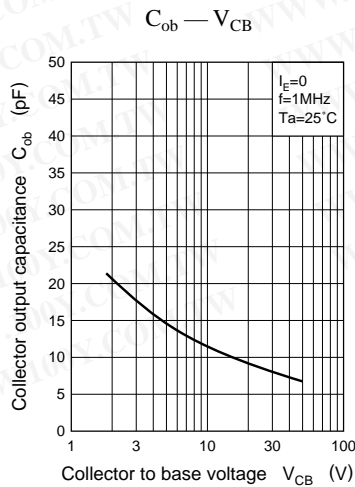
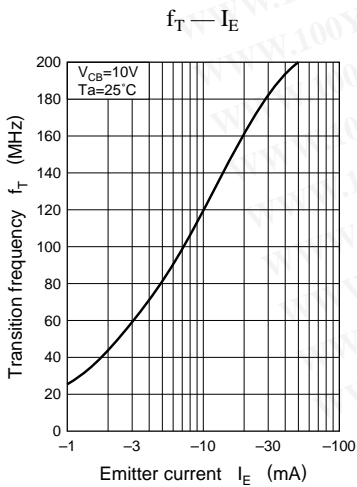
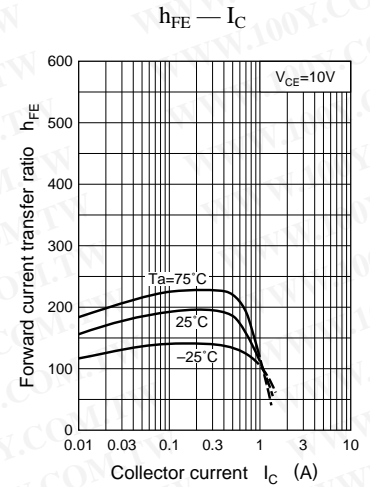
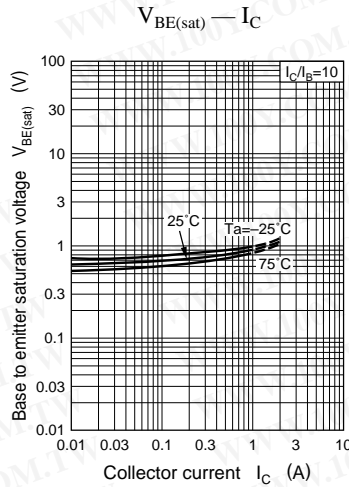
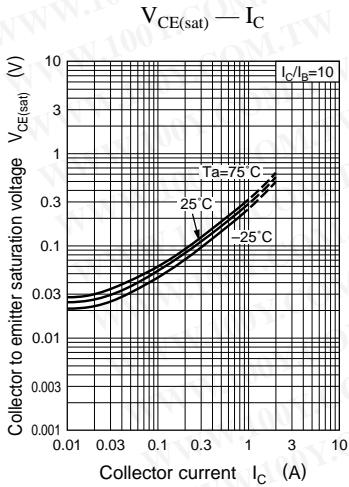
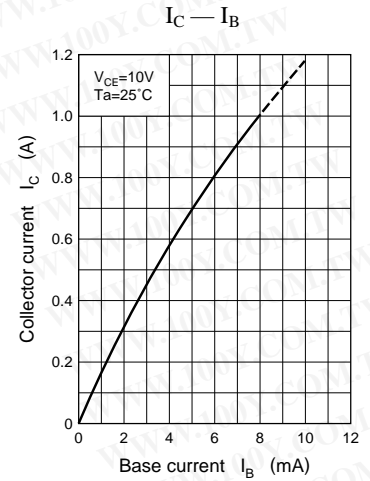
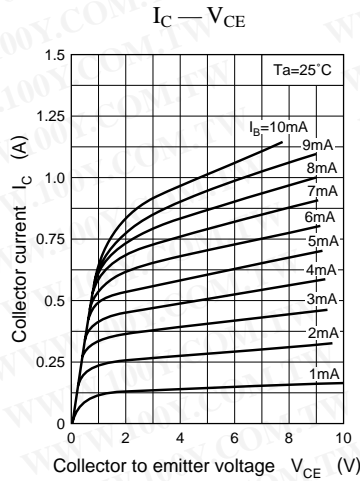
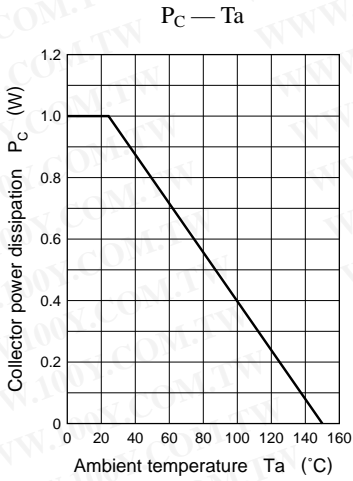
Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I _{CBO}	V _{CB} = 20V, I _E = 0			0.1	μA
Collector to base voltage	V _{CBO}	I _C = 10μA, I _E = 0	30			V
			60			
Collector to emitter voltage	V _{CEO}	I _C = 2mA, I _B = 0	25			V
			50			
Emitter to base voltage	V _{EBO}	I _E = 10μA, I _C = 0	5			V
Forward current transfer ratio	h _{FE1} *1	V _{CE} = 10V, I _C = 500mA*2	85	160	340	
	h _{FE2}	V _{CE} = 5V, I _B = 1A*2	50	100		
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 500mA, I _B = 50mA*2		0.2	0.4	V
Base to emitter saturation voltage	V _{BE(sat)}	I _C = 500mA, I _B = 50mA*2		0.85	1.2	V
Transition frequency	f _T	V _{CB} = 10V, I _E = -50mA, f = 200MHz		200		MHz
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz		11	20	pF

*2 Pulse measurement

*1h_{FE1} Rank classification

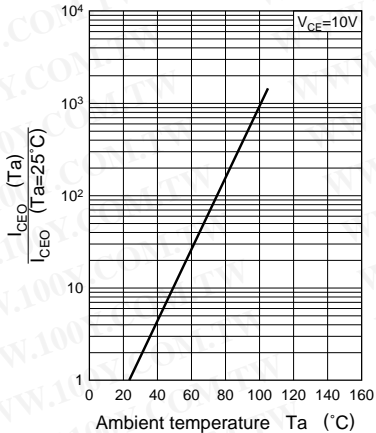
Rank	Q	R	S
h _{FE1}	85 ~ 170	120 ~ 240	170 ~ 340



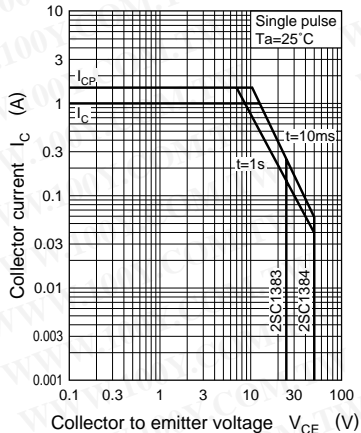
Transistor

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$I_{CE0} - T_a$



Area of safe operation (ASO)



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