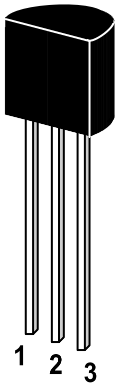
ST 2SC1383 / 2SC1384

NPN Silicon Epitaxial Planar Transistor

For low-frequency power amplification and driver Amplification. Complementary to 2SA683 to and 2SA684.

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Collector 3. Base

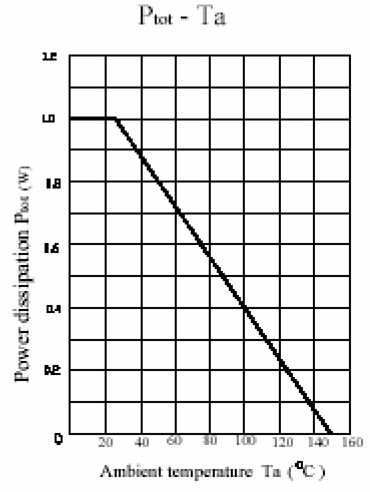
TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings (T_a = 25 °C)

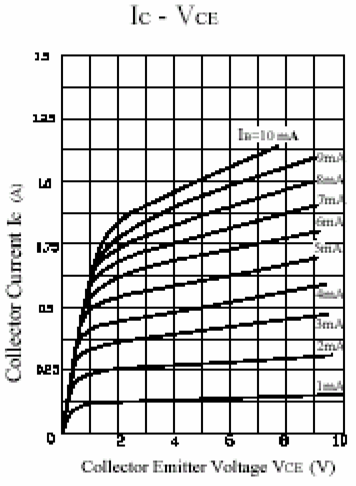
		Symbol	Value	Unit
Collector Base Voltage	2SC1383	V_{CBO}	30	V
	2SC1384	V_{CBO}	60	V
Collector Emitter Voltage	2SC1383	V_{CEO}	25	V
	2SC1384	V_{CEO}	50	V
Emitter Base Voltage		V_{EBO}	5	V
Peak Collector Current		I_{CP}	1.5	A
Collector Current		I_C	1	A
Power Dissipation		P_{tot}	1	W
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_S	-55 to +150	℃

Characteristics at T_{amb}=25 ^{O}C

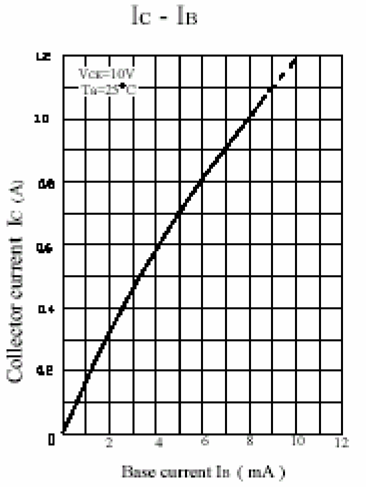
	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at I_C=500mA, V_{CE}=10V					
Q	h_{FE}	85	-	170	-
R	h_{FE}	120	-	240	-
S	h_{FE}	170	-	340	-
at I_C=1A, V_{CE}=5V	h_{FE}	50	100	-	-
Collector Cutoff Current					
at V_{CB}=20V	I_{CBO}	-	-	0.1	μA
Collector Base Voltage					
at I_C=10μA 2SC1383	V_{CBO}	30	-	-	V
2SC1384	V_{CBO}	60	-	-	V
Collector Emitter Voltage					
at I_C=2mA 2SC1383	V_{CEO}	25	-	-	V
I_C=2mA 2SC1384	V_{CEO}	50	-	-	V
Emitter Base Voltage					
at I_E=10μA	V_{EBO}	5	-	-	V
Collector Saturation Voltage					
at I_C=500mA, I_B=50mA	$V_{CE(sat)}$	-	0.2	0.4	V
Base Saturation Voltage					
at I_C=500mA, I_B=50mA	$V_{BE\ (sat)}$	-	0.85	1.2	V
Gain Bandwidth Product					
at V_{CB}=10V,I_E=-50mA,f=200MHz	f_T	-	200	-	MHz
Output Capacitance					
at V_{CB}=10V,f=1MHz	C_{OB}	-	11	20	pF



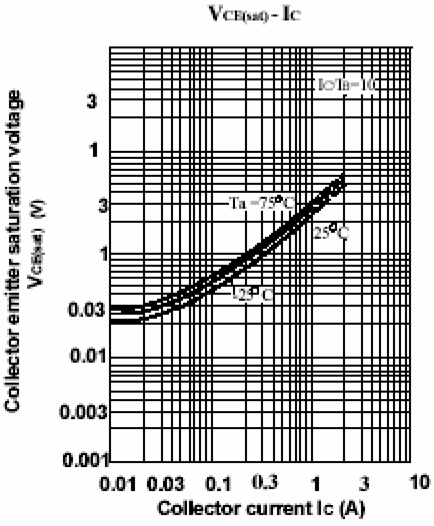
Ptot - Ta



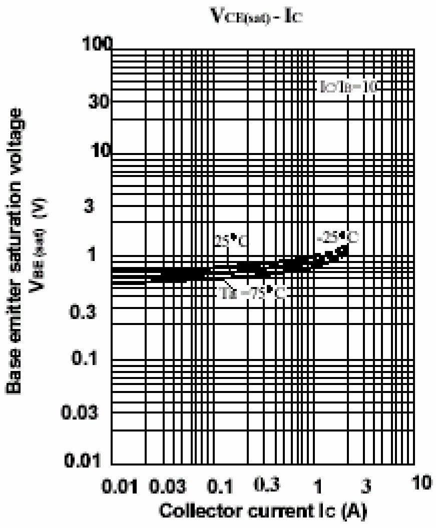
Ic - VCE



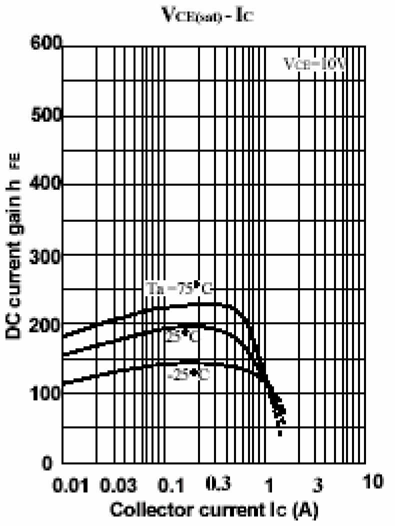
Ic - IB



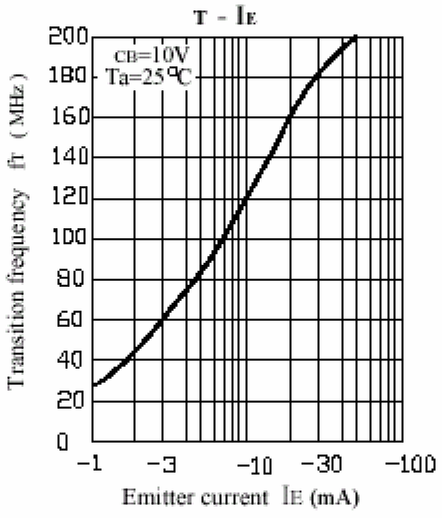
VCE(sat) - Ic



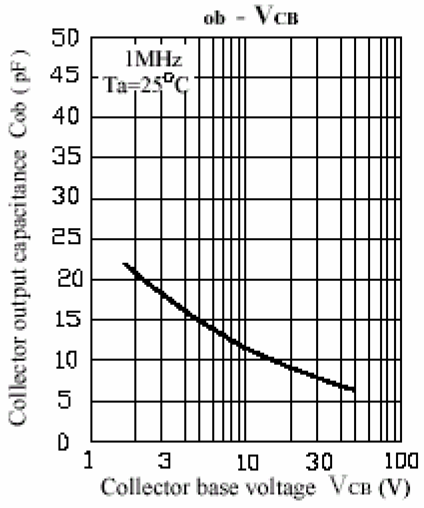
VCE(sat) - Ic



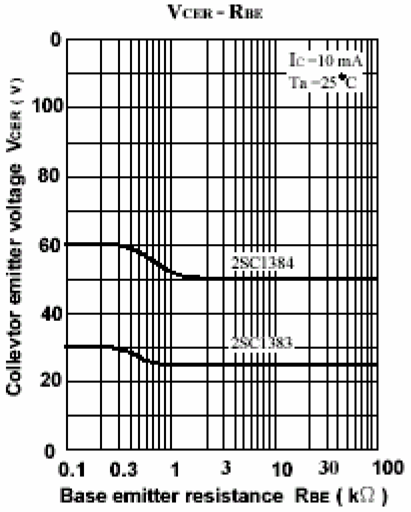
VCE(sat) - Ic



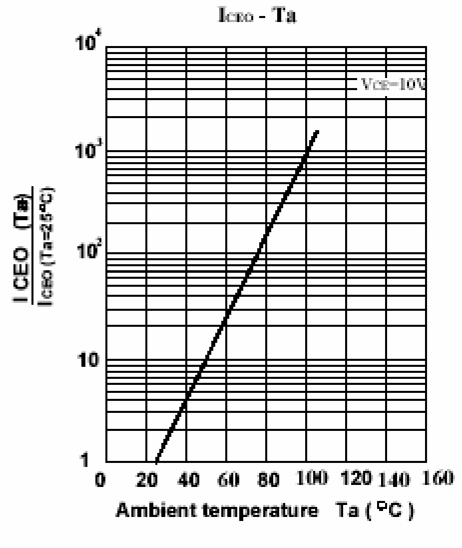
T - IE

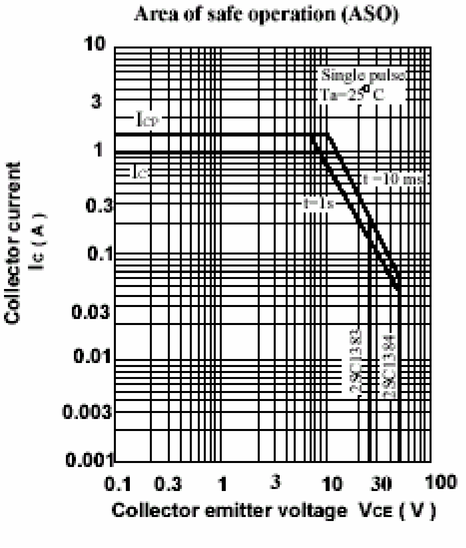


ob - VCB



VCER - RBE


ICEO - Ta
VCE=10V
I CEO (Ta) / ICEO (Ta=25°C)
10⁴
10³
10²
10
1
0
20
40
60
80
100
120
140
160
Ambient temperature Ta (°C)


Area of safe operation (ASO)
Single pulse
Ta=25°C
ICP
IC
t =10 ms
t=1s
2SC1383
2SC1384
Collector current
Ic (A)
10
3
1
0.3
0.1
0.03
0.01
0.003
0.001
0.1
0.3
1
3
10
30
100
Collector emitter voltage VCE (V)