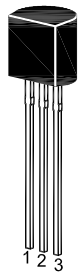
ST 2SC1383 / 2SC1384

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

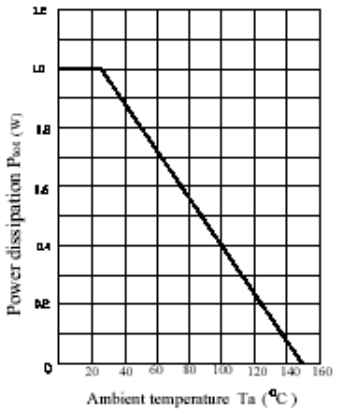
Absolute Maximum Ratings (T_a = 25 °C)

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

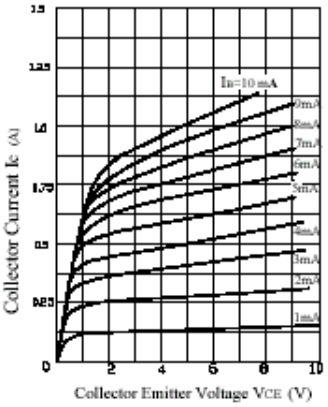
Characteristics at T_a = 25 °C

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

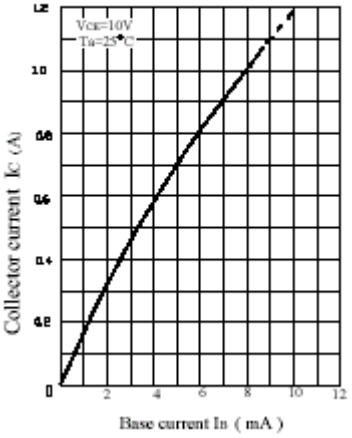
Ptot - Ta



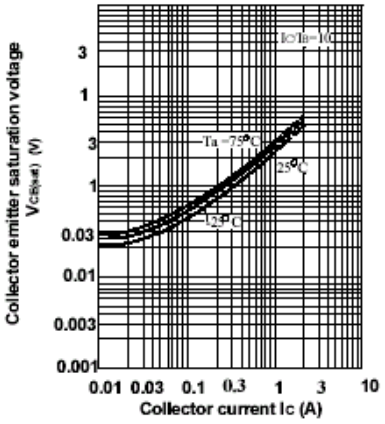
Ic - VCE



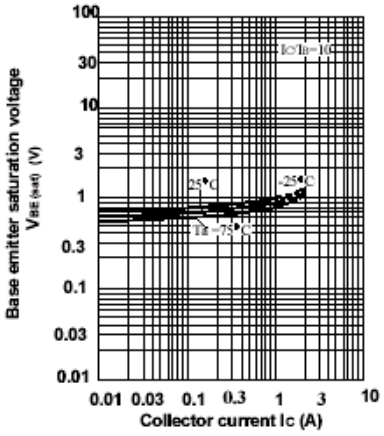
Ic - IB



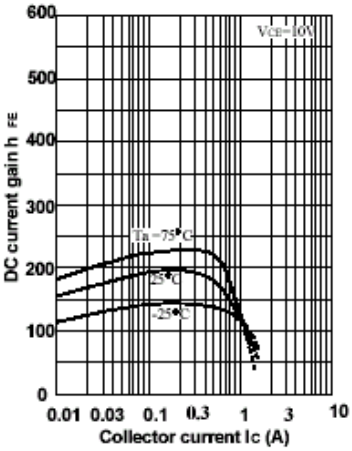
VCE(sat) - Ic



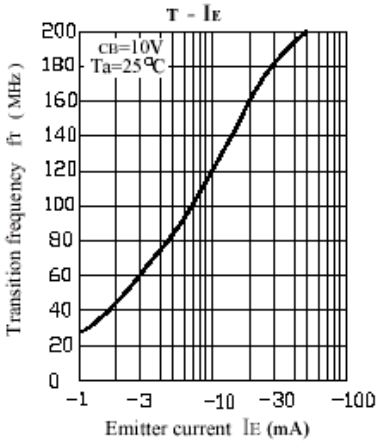
VCE(sat) - Ic



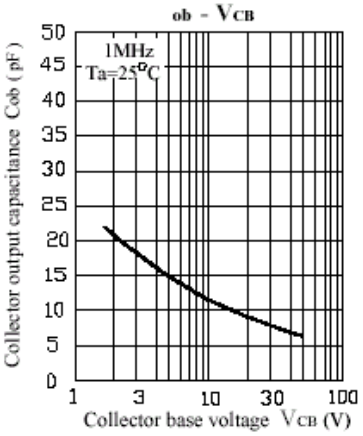
VCE(sat) - Ic



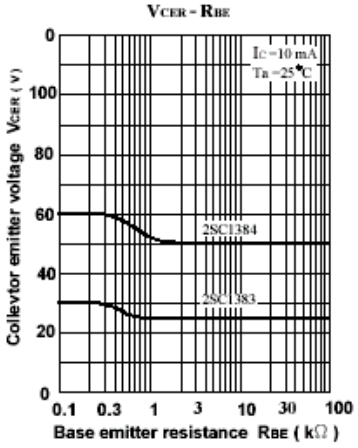
T - IE

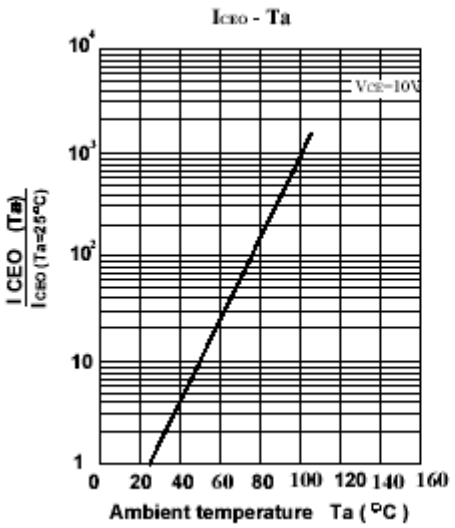


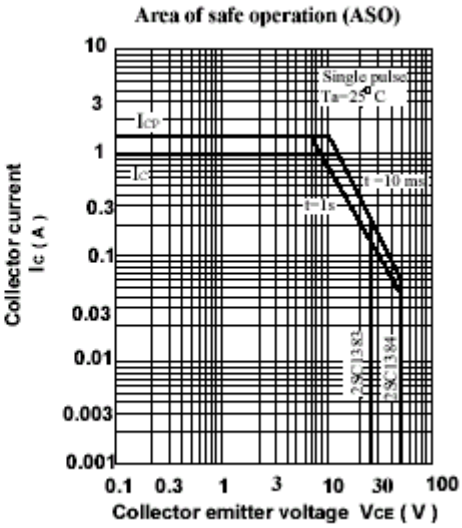
ob - VCB



VCER - RBE




ICEO - Ta
VCE=10V
I CEO (Ta) / ICEO (Ta=25°C)
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)
Collector emitter voltage VCE (V)