

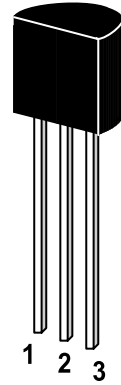
ST 2SC1383 / 2SC1384

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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.

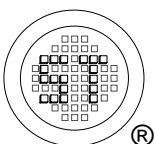


1. Emitter 2. Collector 3. Base

TO-92 Plastic Package
Weight approx. 0.19g

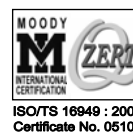
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

	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	$^\circ\text{C}$
Storage Temperature Range		T_s	-55 to +150	$^\circ\text{C}$



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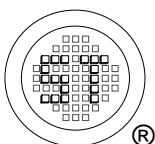
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Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

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



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ISO 14001:2004
Certificate No. 014

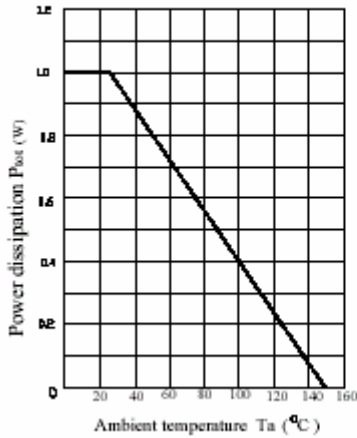
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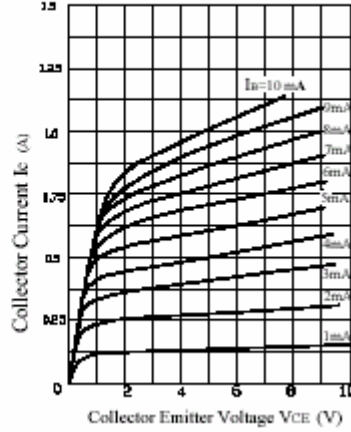
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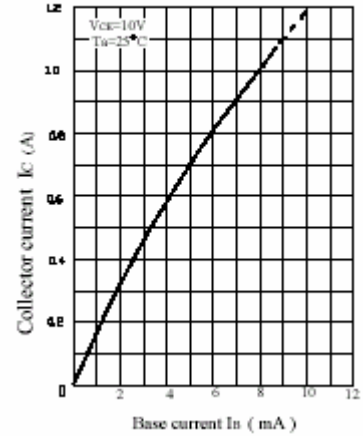
$P_{tot} - T_a$



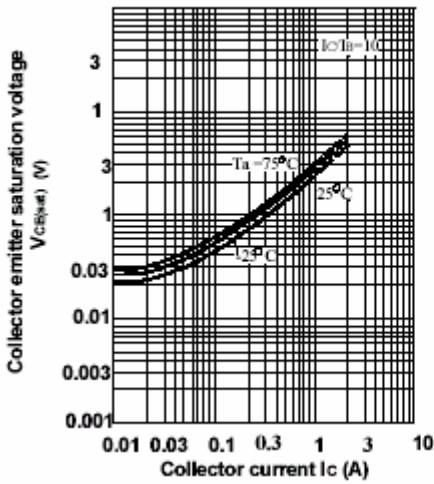
$I_c - V_{CE}$



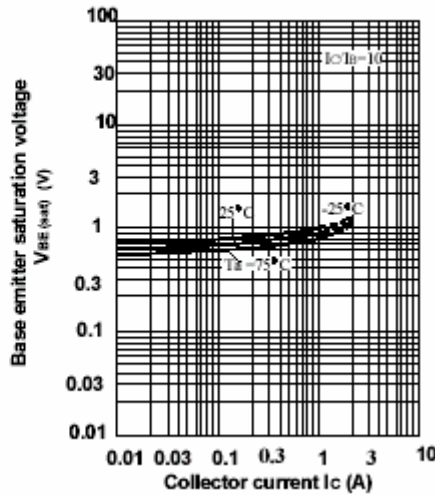
$I_c - I_b$



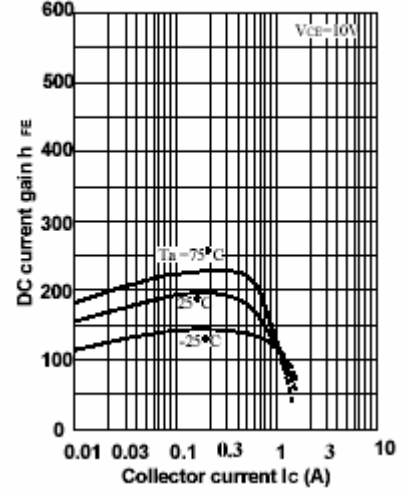
$V_{CE(sat)} - I_c$



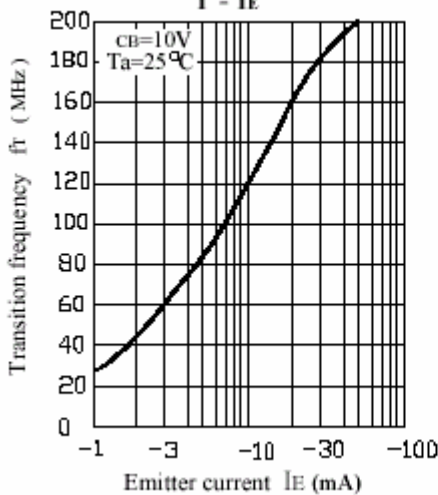
$V_{BE(sat)} - I_c$



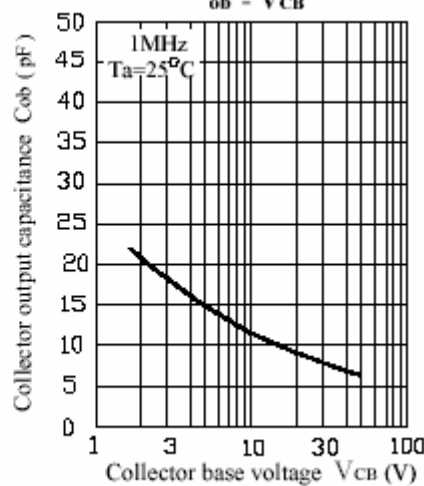
$V_{CE(sat)} - I_c$



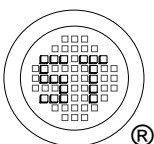
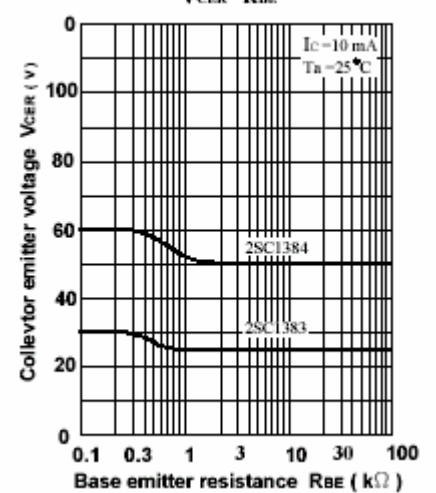
$f_T - I_E$



$C_{ob} - V_{CB}$



$V_{CE} - R_{BE}$



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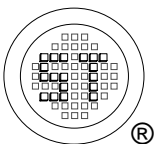
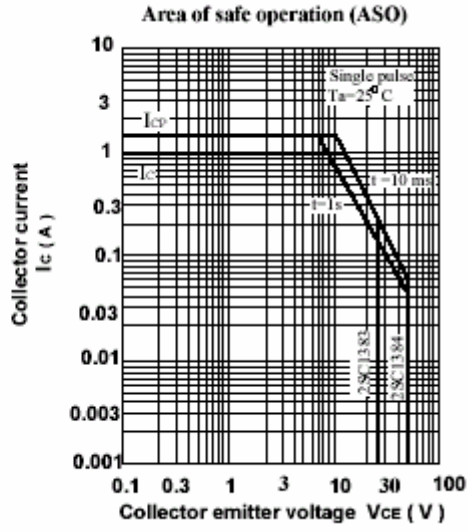
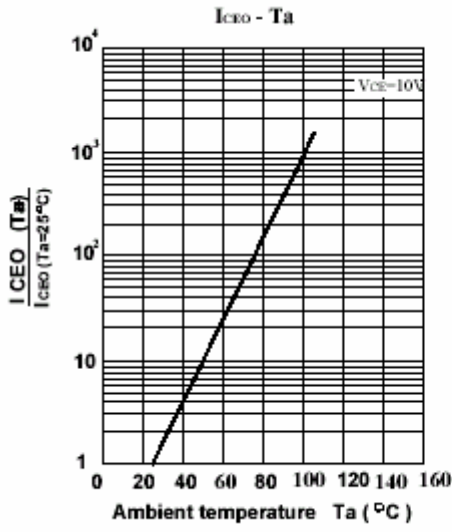
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