

2SC1383 / 2SC1384

NPN Silicon Epitaxial Planar Transistor

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



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	2SC1383 30	V
		2SC1384 60	
Collector Emitter Voltage	V_{CEO}	2SC1383 25	V
		2SC1384 50	
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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

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



