



# TO-92L Plastic-Encapsulate Transistors

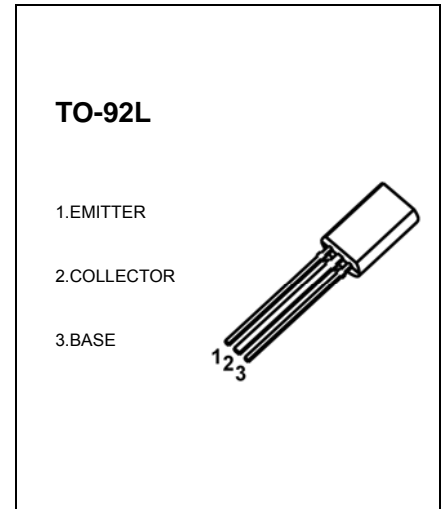
**2SC1383** TRANSISTOR (NPN)  
**2SC1384**

**FEATURES**

- Low Collector to Emitter Saturation Voltage  $V_{CE(sat)}$ .
- Complementary Pair with 2SA0683 and 2SA0684.

**MAXIMUM RATINGS ( $T_a=25^{\circ}C$  unless otherwise noted)**

Symbol	Parameter	2SC1383	2SC1384	Unit
$V_{CBO}$	Collector-Base Voltage	30	60	V
$V_{CEO}$	Collector-Emitter Voltage	25	50	V
$V_{EBO}$	Emitter-Base Voltage	5		V
$I_C$	Collector Current –Continuous	1		A
$P_C$	Collector Power Dissipation	1		W
$T_J$	Junction Temperature	150		$^{\circ}C$
$T_{stg}$	Storage Temperature	-55-150		$^{\circ}C$



**ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}C$  unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage 2SC1383 2SC1384	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	30			V
			60			
Collector-emitter breakdown voltage 2SC1383 2SC1384	$V_{(BR)CEO}$	$I_C=2mA, I_B=0$	25			V
			50			
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=20V, I_E=0$			0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=10V, I_C=500mA$	85		340	
	$h_{FE(2)}$	$V_{CE}=5V, I_C=1A$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$			0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=50mA$			1.2	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=50mA$		200		MHz

**CLASSIFICATION OF  $h_{FE(1)}$**

Rank	Q	R	S
Range	85-170	120-240	170-340