



# TO-92L Plastic-Encapsulate Transistors

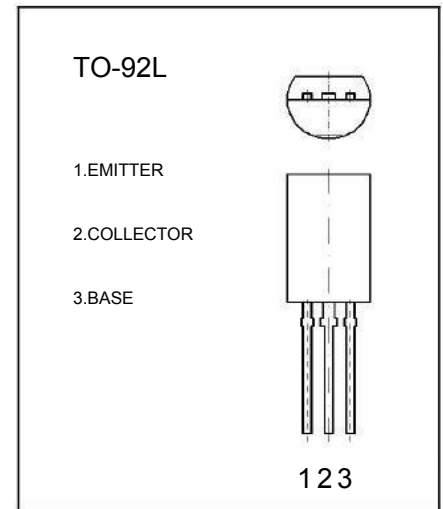
## C3334 TRANSISTOR (NPN)

### FEATURES

Low collector to emitter saturation voltage  $V_{CE(sat)}$ .  
Complementary pair with A1680

### MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter		Units
$V_{CBO}$	Collector-Base Voltage	250	V
$V_{CEO}$	Collector-Emitter Voltage	250	V
$V_{EBO}$	Emitter-Base Voltage	5.0	V
$I_C$	Collector Current – Continuous	0.05	A
$P_C$	Collector Power Dissipation	0.9	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55-150	$^\circ\text{C}$



### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	250			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=200\text{V}, I_E=0$			1.0	$\mu\text{A}$
<b>Emitter cut-off current</b>	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			1.0	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=20\text{V}, I_C=25\text{mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$			1.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$V_{CE}=20\text{V}, I_C=25\text{mA}$		0.75		V
Transition frequency	$f_T$	$V_{CE}=10\text{V}, I_C=10\text{mA}$	60	100		MHz

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

Rank	1	2
Range	50-140	120-240

