

## TO-92 Plastic-Encapsulate Transistors

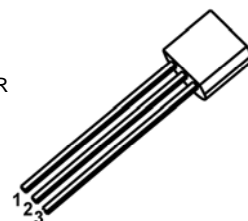
### 2SC5343 TRANSISTOR (NPN)

#### FEATURES

- Excellent  $h_{FE}$  Linearity  
:  $h_{FE}(2)=100$ (Typ) at  $V_{CE}=6V, I_C=150mA$   
:  $h_{FE}(I_C=0.1mA) / h_{FE}(I_C=2mA)=0.95$ (Typ).
- Low Noise:  $NF=10dB$ (Typ). At  $f=1KHz$ .

#### TO-92

- EMITTER
- COLLECTOR
- BASE



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

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	50	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	150	mA
$P_C$	Collector power dissipation	625	mW
$T_J$	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	$V_{(BR)CBO}$	$I_C=100 \mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10 \mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=60V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=6V, I_C=2mA$	70		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$		0.1	0.25	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=1mA$	80			MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$			3.5	pF
Noise figure	NF	$V_{CE}=6V, I_C=0.1mA,$ $f=1KHz, R_g=10K \Omega$			10	dB

#### CLASSIFICATION OF $h_{FE}$

Rank	O	Y	G	L
Range	70-140	120-240	200-400	300-700