

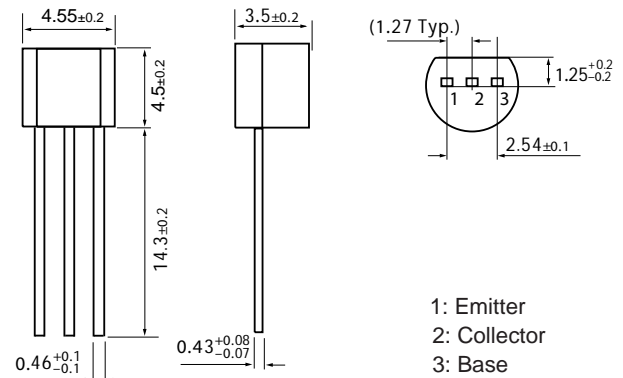
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

TO-92

**FEATURES**

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



1: Emitter  
2: Collector  
3: Base

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	50	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	150	mA
$I_B$	Base Current-Continuous	50	mA
$P_D$	Total Power Dissipation	0.2	W
$T_J, T_{stg}$	Junction and Storage Temperature	-55~+150	$^\circ\text{C}$

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

Parameter	Symbol	Min	Typ.	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	$B(BR)_{CBO}$	60	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$B(BR)_{CEO}$	50	-	-	V	$I_C=10\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$B(BR)_{EBO}$	5	-	-	V	$I_E=10\mu\text{A}, I_C=0$
Collector-Base Cutoff Current	$I_{CBO}$	-	-	0.1	$\mu\text{A}$	$V_{CB}=60V, I_E=0$
Emitter-Base Cutoff Current	$I_{EBO}$	-	-	0.1	$\mu\text{A}$	$V_{EB}=5V, I_C=0$
Collector Saturation Voltage	$V_{CE(sat)}$	-	0.1	0.25	V	$I_C=100\text{mA}, I_B=10\text{mA}$
DC Current Gain	$h_{FE1}$	70	-	700		$V_{CE}=6V, I_C=2\text{mA}$
Gain-Bandwidth Product	$f_T$	80	-	-	MHz	$V_{CE}=10V, I_C=1\text{mA}$
Output Capacitance	$C_{ob}$	-	-	3.5	pF	$V_{CB}=10V, f=1\text{MHz}, I_E=0$
Noise Figure	NF	-	-	10	dB	$V_{CE}=6V, I_C=0.1\text{mA}, f=1\text{KHz}, R_g=10K$

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

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

**Typical Characteristics**

**2SC5343**

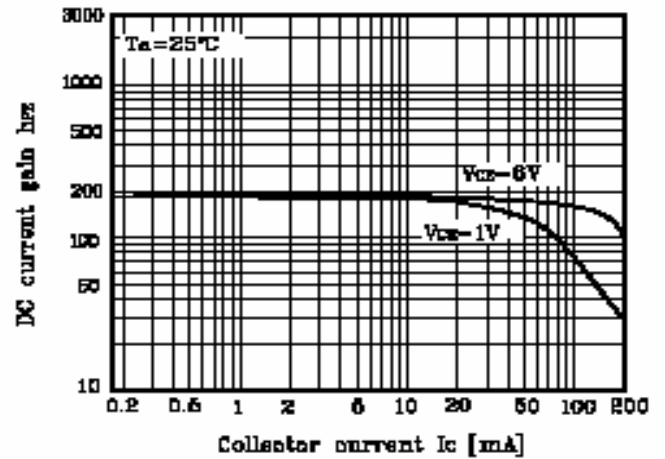
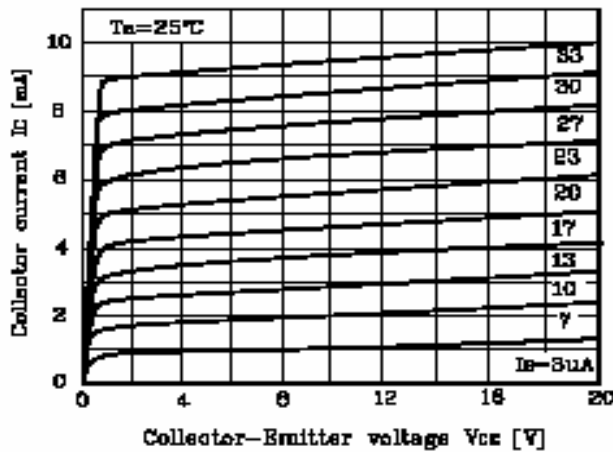


Fig. 5  $V_{CE(sat)} - I_C$

