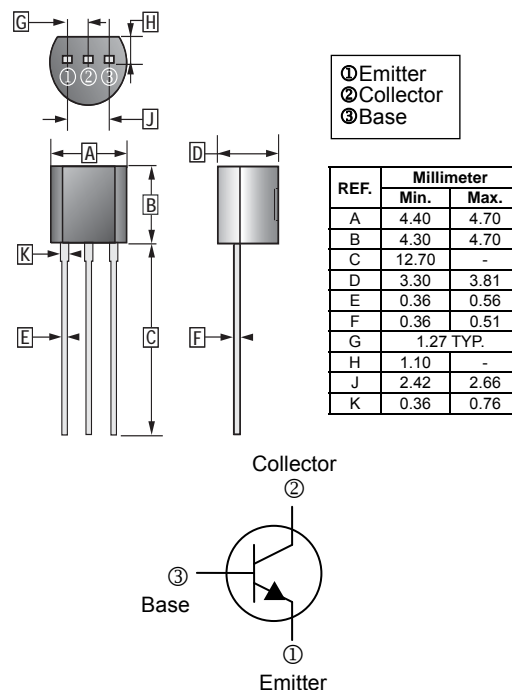


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- TV Final picture if amplifier applications

## TO-92



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

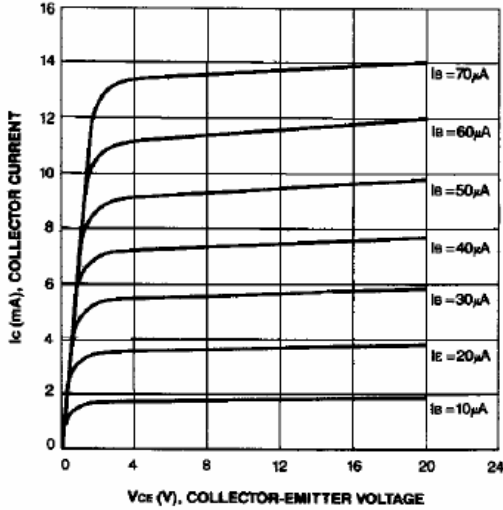
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CB0}$	30	V
Collector to Emitter Voltage	$V_{CEO}$	25	V
Emitter to Base Voltage	$V_{EBO}$	4	V
Collector Current - Continuous	$I_C$	50	mA
Collector Power Dissipation	$P_C$	300	mW
Junction, Storage Temperature	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

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

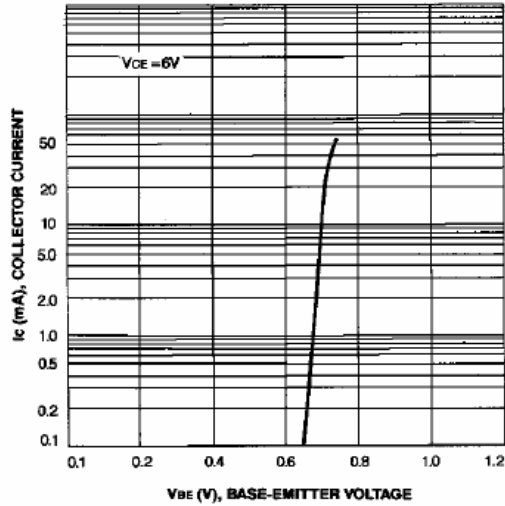
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	30	-	-	V	$I_C=10\mu\text{A}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	25	-	-	V	$I_C=5\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	4	-	-	V	$I_E=10\mu\text{A}, I_C=0$
Collector Cut - Off Current	$I_{CBO}$	-	-	0.1	$\mu\text{A}$	$V_{CB}=30\text{V}, I_E=0$
Emitter Cut - Off Current	$I_{EBO}$	-	-	0.1	$\mu\text{A}$	$V_{EB}=3\text{V}, I_C=0$
DC Current Gain	$h_{FE}$	20	-	200		$V_{CE}=12.5\text{V}, I_C=12.5\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.2	V	$I_C=15\text{mA}, I_B=1.5\text{mA}$
Base to Emitter Saturation voltage	$V_{BE(sat)}$	-	-	1.2	V	$I_C=15\text{mA}, I_B=1.5\text{mA}$
Transition Frequency	$f_T$	300	-	-	MHz	$V_{CE}=12.5\text{V}, I_C=12.5\text{mA}$
Collector Output Capacitance	$C_{ob}$	0.8	-	2	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$
Power Gain	$G_{pe}$	28	-	36	dB	$V_{CC}=12.5\text{V}, I_E=-12.5\text{mA}, f=45\text{MHz}$

**CHARACTERISTIC CURVES**

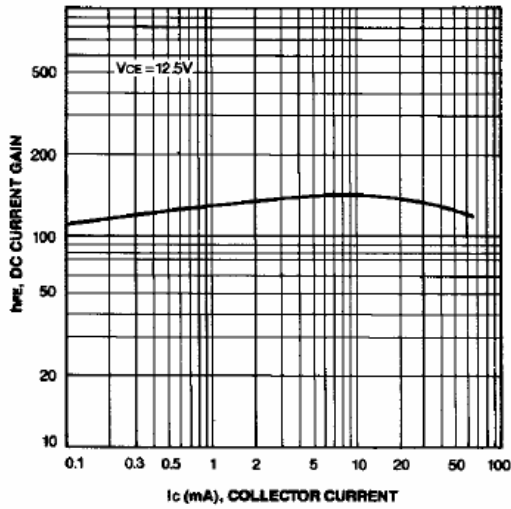
**STATIC CHARACTERISTIC**



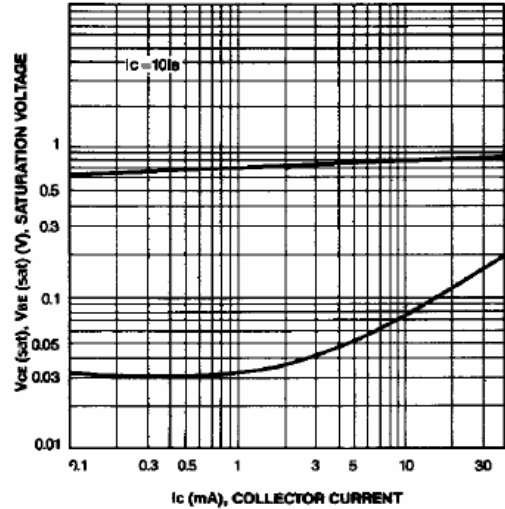
**BASE-EMITTER ON VOLTAGE**



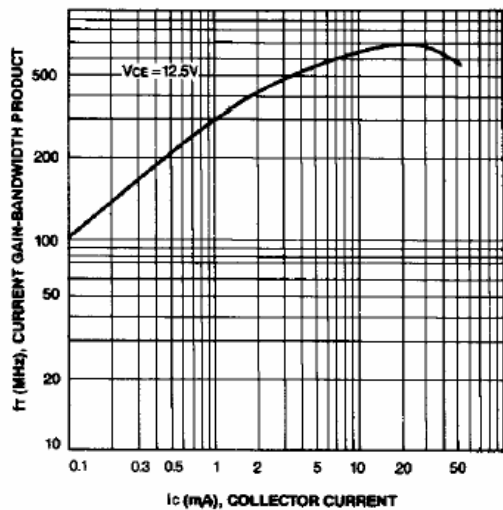
**DC CURRENT GAIN**



**BASE-EMITTER SATURATION VOLTAGE  
COLLECTOR-EMITTER SATURATION VOLTAGE**



**CURRENT GAIN-BANDWIDTH PRODUCT**



**COLLECTOR INPUT CAPACITANCE  
COLLECTOR OUTPUT CAPACITANCE**

