

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

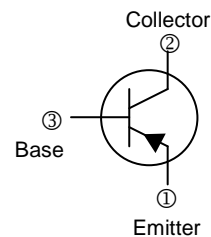
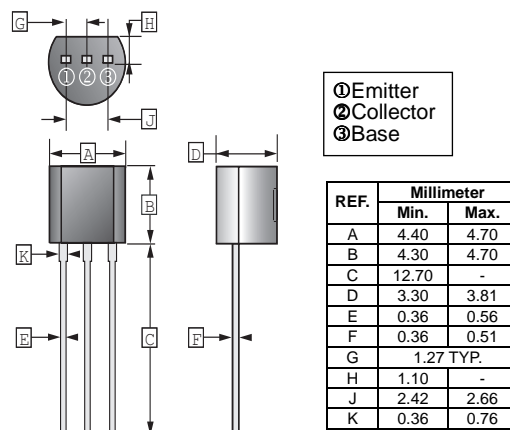
## FEATURES

- Low speed switching.

## CLASSIFICATION OF $h_{FE}$

Product-Rank	B772S-R	B772S-O	B772S-Y	B772S-GR
Range	60~120	100~200	160~320	200~400

## TO-92



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

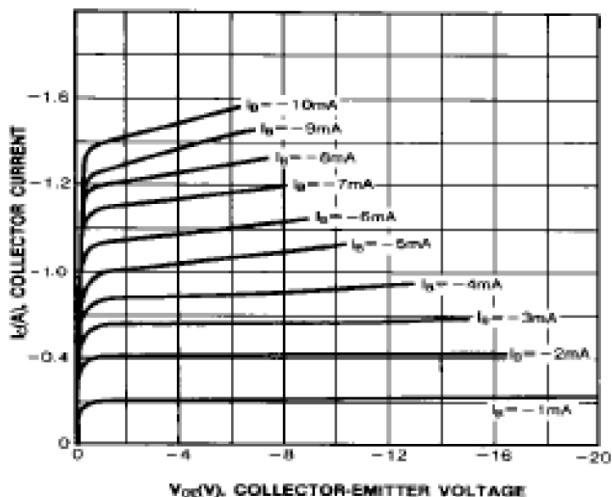
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-40	V
Collector to Emitter Voltage	$V_{CEO}$	-30	V
Emitter to Base Voltage	$V_{EBO}$	-6	V
Collector Current - Continuous	$I_C$	-3	A
Collector Power Dissipation	$P_C$	625	mW
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	200	$^\circ\text{C} / \text{W}$
Junction, Storage Temperature	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

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

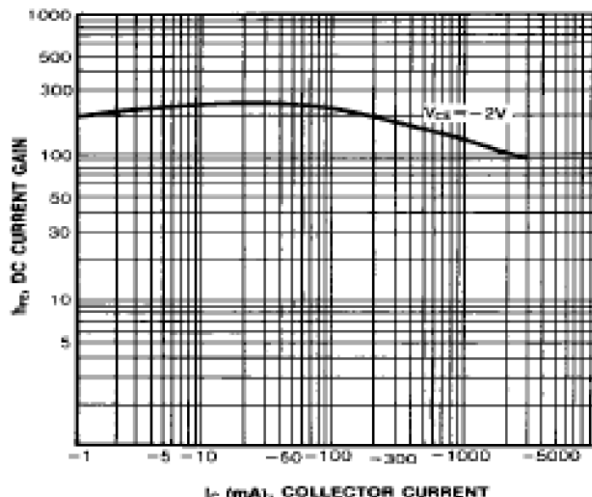
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	-40	-	-	V	$I_C = -100\mu\text{A}, I_E = 0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	-30	-	-	V	$I_C = -10\text{mA}, I_B = 0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	-6	-	-	V	$I_E = -100\mu\text{A}, I_C = 0$
Collector Cut-Off Current	$I_{CBO}$	-	-	-1	$\mu\text{A}$	$V_{CB} = -40\text{V}, I_E = 0$
Collector Cut-Off Current	$I_{CEO}$	-	-	-10	$\mu\text{A}$	$V_{CE} = -30\text{V}, I_B = 0$
Emitter Cut-Off Current	$I_{EBO}$	-	-	-1	$\mu\text{A}$	$V_{EB} = -6\text{V}, I_C = 0$
DC Current Gain	$h_{FE}$	60	-	400		$V_{CE} = -2\text{V}, I_C = -1\text{A}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.5	V	$I_C = -2\text{A}, I_B = -200\text{mA}$
Base to Emitter Voltage	$V_{BE(sat)}$	-	-	-1.5	V	$V_{CE} = -2\text{V}, I_C = -200\text{mA}$
Transition Frequency	$f_T$	50	80	-	MHz	$V_{CE} = -5\text{V}, I_C = -100\text{mA}, f = 10\text{MHz}$

**CHARACTERISTIC CURVES**

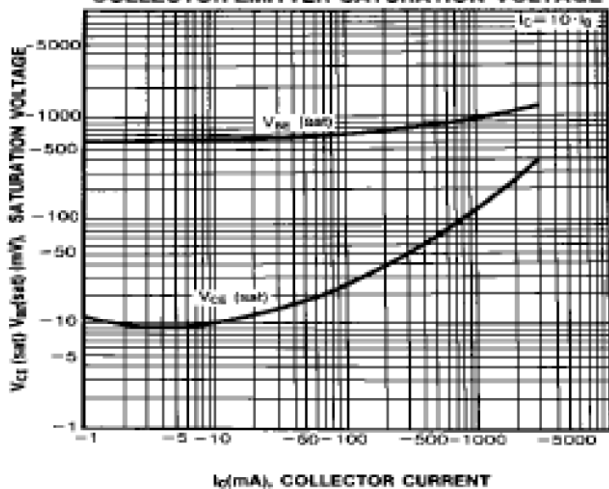
**STATIC CHARACTERISTIC**



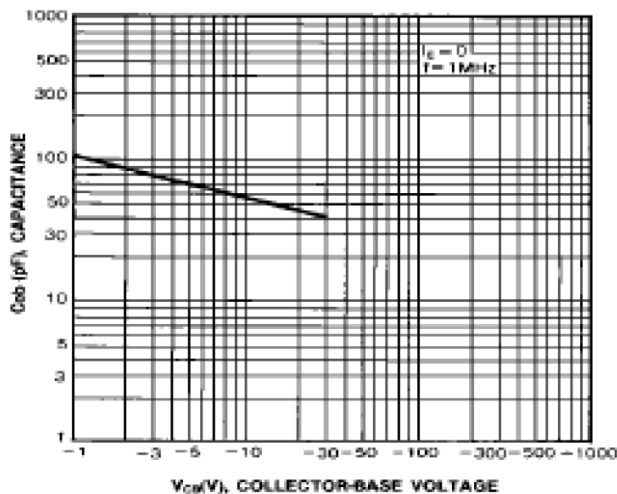
**DC CURRENT GAIN**



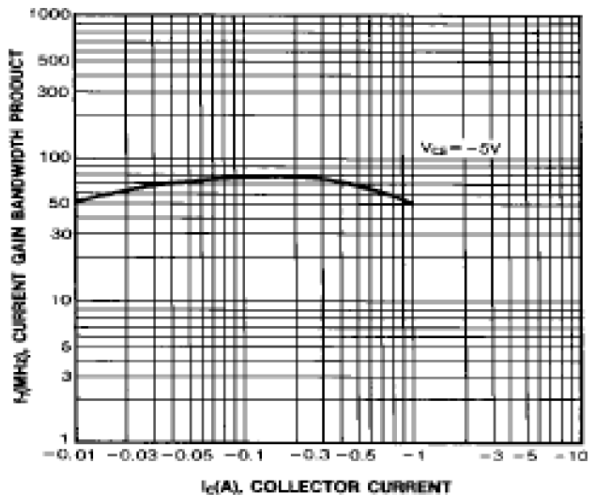
**BASE-EMITTER SATURATION VOLTAGE  
COLLECTOR-EMITTER SATURATION VOLTAGE**



**COLLECTOR OUTPUT CAPACITANCE**



**CURRENT GAIN-BANDWIDTH PRODUCT**



**SAFE OPERATING AREA**

