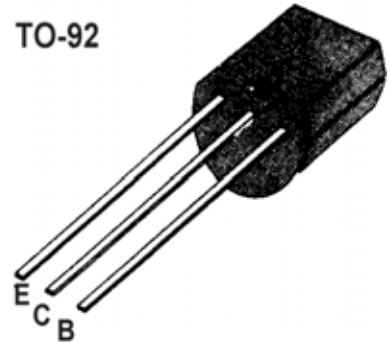


**■ ■ APPLICATION:** Low Frequency Amplifier Medium Speed Switching.

**■ ■ MAXIMUM RATINGS** ( $T_a=25^{\circ}\text{C}$ )

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	$V_{CBO}$	20	V
Collector-emitter voltage	$V_{CEO}$	15	V
Emitter-base voltage	$V_{EBO}$	3	V
Collector current	$I_C$	30	mA
Collector Power Dissipation	$P_C$	100	mW
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	- 55~150	$^{\circ}\text{C}$

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**■ ■ ELECTRICAL CHARACTERISTICS** ( $T_a=25^{\circ}\text{C}$ )

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
DC Current Gain	$h_{FE}$	29		400		$V_{CE}=6\text{V}, I_C=1\text{mA}$
Collector Cut-off Current	$I_{CBO}$			0.1	$\mu\text{A}$	$V_{CB}=10\text{V}, I_E=0$
Emitter Cut-off Current	$I_{EBO}$			0.1	$\mu\text{A}$	$V_{EB}=3\text{V}, I_C=0$
Collector-Base Breakdown Voltage	$BV_{CBO}$	20			V	$I_C=0.1\text{mA}, I_E=0$
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	15			V	$I_C=1\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$BV_{EBO}$	3			V	$I_E=0.1\text{mA}, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.4	V	$I_C=10\text{mA}, I_B=1\text{mA}$
Gain bandwidth product	$f_T$	100	300		MHz	$I_C=1\text{mA}, V_{CE}=6\text{V}$
Common Base Output Capacitance	$C_{ob}$		1.4		PF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$
Common Base Output Capacitance	$N_F$		5.5		dB	$V_{CE}=6\text{V}, I_C=1\text{mA}, f=100\text{MHz}, R_g=50\Omega$
Power Gain	$G_p$		17		dB	$V_{CE}=6\text{V}, I_C=1\text{mA}, f=100\text{MHz}$

**■ ■  $h_{FE}$  Classification**

Classification	D	E	F	G	H	I
$h_{FE}$	29~44	40~59	54~80	72~108	97~146	132~198