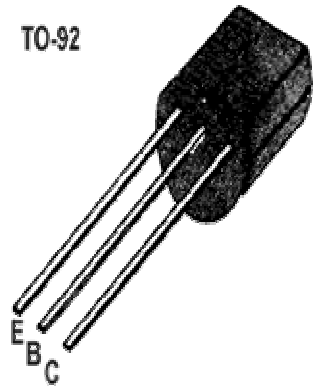


■ ■ APPLICATION: POWER AMPLIFIER APPLICATION.

SWITCHING APPLICATION.

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

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	$V_{CB0}$	60	V
Collector-emitter voltage	$V_{CEO}$	40	V
Emitter-base voltage	$V_{EBO}$	6	V
Collector current	$I_c$	200	mA
Collector Power Dissipation	$P_c$	625	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55~150	$^\circ\text{C}$


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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
DC Current Gain	$h_{FE}$	70		300		$V_{CE}=1\text{ V}$ , $I_c=10\text{ mA}$
Collector cutoff current	$I_{CEX}$			0.05	$\mu\text{A}$	$V_{CE}=30\text{ V}$ , $V_{BE}=3\text{ V}$
Base cutoff current	$I_{BEX}$			0.05	$\mu\text{A}$	$V_{CE}=30\text{ V}$ , $V_{BE}=3\text{ V}$
Collector-Base Breakdown Voltage	$BV_{CB0}$	60			V	$I_c=10\mu\text{A}$ , $I_E=0$
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	40			V	$I_c=1\text{ mA}$ , $I_B=0$
Emitter-Base Breakdown Voltage	$BV_{EBO}$	6			V	$I_E=10\mu\text{A}$ , $I_c=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.3	V	$I_c=50\text{ mA}$ , $I_B=5\text{ mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			0.95	V	$I_c=50\text{ mA}$ , $I_B=5\text{ mA}$
Gain bandwidth product	$f_T$	300			MHz	$I_c=10\text{ mA}$ , $V_{CE}=20\text{ V}$ , $f=100\text{ MHz}$
Common Base Output Capacitance	$C_{ob}$			4	PF	$V_{CB}=5\text{ V}$ , $I_E=0$ , $f=1\text{ MHz}$
Turn on Time	$t_{on}$			70	ns	$V_{cc}=3\text{ V}$ , $V_{BE}=0.5\text{ V}$ , $I_c=10\text{ mA}$ , $I_{B1}=1\text{ mA}$
Turn off Time	$t_{off}$			225	ns	$V_{cc}=3\text{ V}$ , $I_c=10\text{ mA}$ , $I_{B1}=I_{B2}=1\text{ mA}$

 ■ ■  $h_{FE}$  Classification

Classification

 $h_{FE}$ 

70 ~ 300