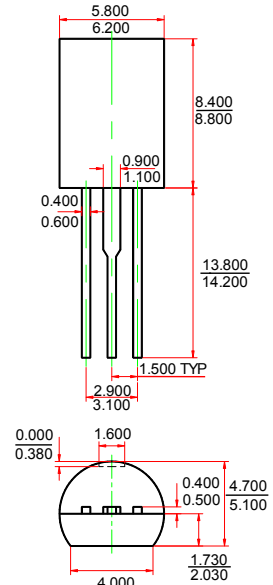




1. EMITTER  
2. COLLECTOR  
3. BASE

### TO-92MOD



## Features

- High power amplifier
- Low  $V_{CE(sat)}$

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-30	V
$V_{CEO}$	Collector-Emitter Voltage	-30	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-1.5	A
$P_C$	Collector Power Dissipation	0.9	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55 to +150	$^\circ\text{C}$

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

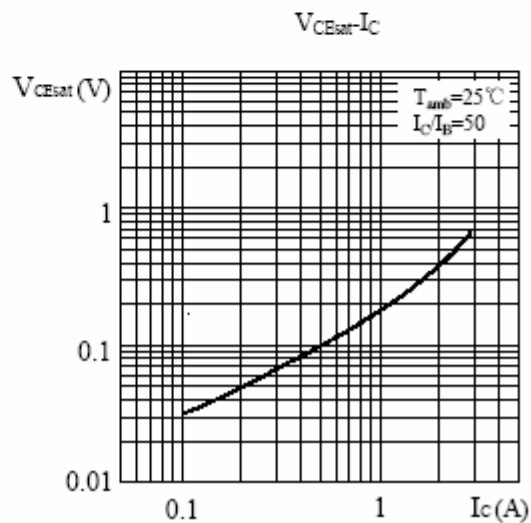
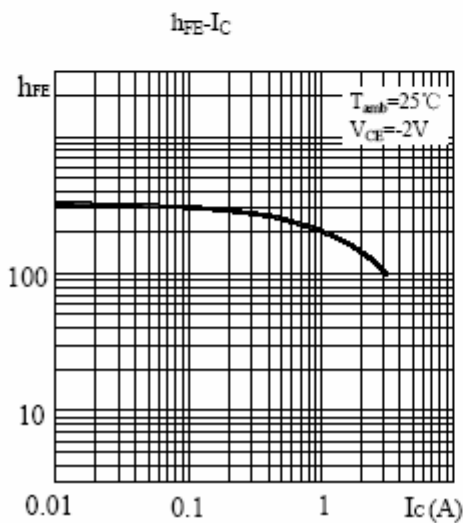
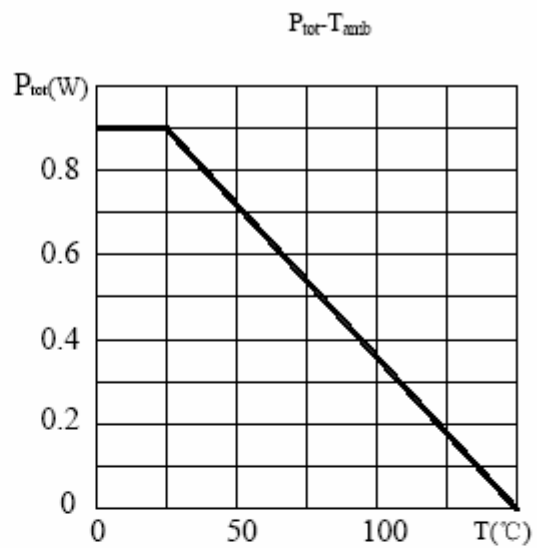
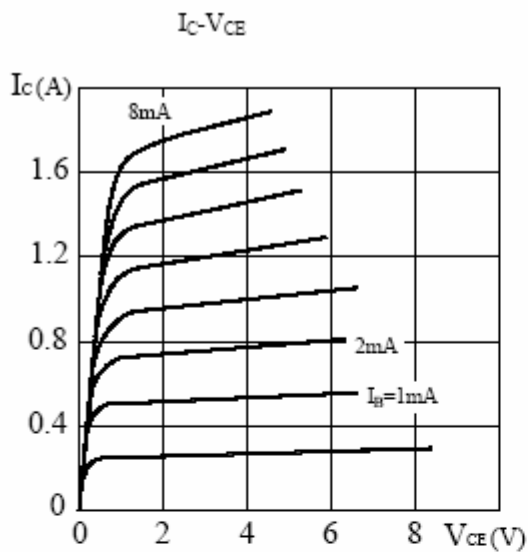
Parameter	Symbol	Test conditions	MIN	TYPE	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}$ , $I_E = 0$	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{ mA}$ , $I_B = 0$	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}$ , $I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -30\text{ V}$ , $I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{ V}$ , $I_C = 0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = -2\text{ V}$ , $I_C = -500\text{ mA}$	100		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5\text{ A}$ , $I_B = -30\text{ mA}$			-2	V
Transition frequency	$f_T$	$V_{CE} = -5\text{ V}$ , $I_C = -100\text{ mA}$	50			MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}$ , $I_E = 0$ , $f = 1\text{ MHz}$			80	pF

### CLASSIFICATION OF $h_{FE}$

Rank	O	Y
Range	100-240	150-400



### Typical Characteristics



Package	Packing	Quantity	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92MOD	Bulk	500pcs/BP	5000pcs	245×170×100	50,000pcs	525×375×270
TO-92MOD	Tape	2000pcs/TP	2000pcs	333×245×43	20,000pcs	502×403×300