

TRANSISTOR (NPN)

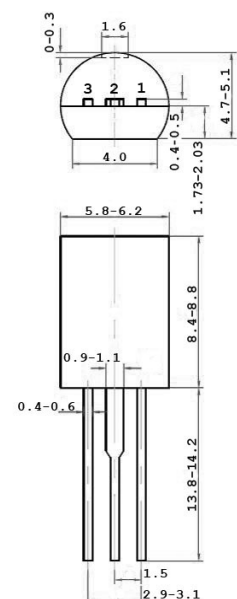
Plastic-Encapsulate Transistor

FEATURES

- Power amplifier applications

TO-92MOD

- EMITTER
- COLLECTOR
- BASE



UNIT:mm

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

MAXIMUM RATINGS

Parameters	Symbols	Value	UNITS
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-2	A
Collector Dissipation	P_C	900	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55-150	°C

ELECTRICAL CHARACTERISTICS

Parameters	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-50			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-50			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-5			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-50V, I_E=0$			-1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5V, I_C=0$			-1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-2V, I_C=-500A$	70		240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-1A, I_B=-50mA$			-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-1A, I_B=-50mA$			-1.2	V
Transition Frequency	f_T	$V_{CE}=-2V, I_C=-500mA$		100		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-10V, I_E=0, f=1MHz$		40		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	70-140	120-240