

TO-92MOD Plastic-Encapsulate Transistor

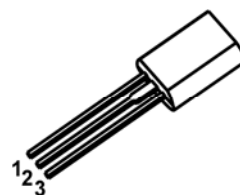
2SA1371 TRANSISTOR (PNP)

FEATURES

- High Breakdown Voltage
- Small Reverse Transition Capacitance and High Frequency

TO – 92MOD

1. EMITTER
2. COLLECTOR
3. BASE



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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-300	V
V_{CEO}	Collector-Emitter Voltage	-300	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-0.1	A
P_C	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	$^{\circ}\text{C/W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-300			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-300			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -200\text{V}, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -10\text{V}, I_C = -10\text{mA}$	40		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -20\text{mA}, I_B = -2\text{mA}$			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -20\text{mA}, I_B = -2\text{mA}$			-1	V
Collector output capacitance	C_{ob}	$V_{CB} = -30\text{V}, I_E = 0, f = 1\text{MHz}$			5	pF
Transition frequency	f_T	$V_{CE} = -30\text{V}, I_C = -10\text{mA}$	100			MHz

CLASSIFICATION OF h_{FE}

RANK	C	D	E	F
RANGE	40-80	60-120	100-200	160-320