



POWER SKY (H.K.) LTD.

TO-251/252 Plastic-Encapsulate Transistors

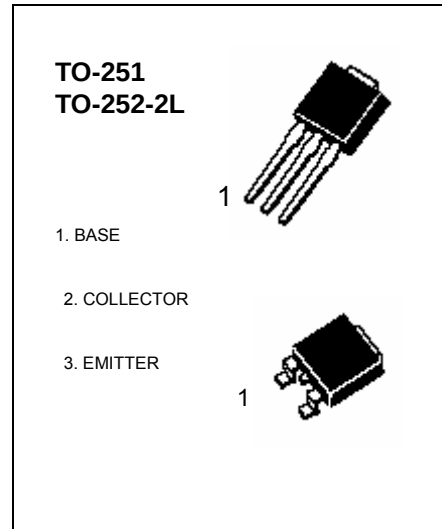
2SA1242 TRANSISTOR (PNP)

FEATURES

- Strobe Flash Applications Medium Power Amplifier Applications
- Excellent h_{FE} linearity
 - : $h_{FE(1)} = 100$ to 320 ($V_{CE} = -2$ V, $I_C = -0.5$ A)
 - : $h_{FE(2)} = 70$ (min) ($V_{CE} = -2$ V, $I_C = -4$ A)
- Low collector saturation voltage
 - : $V_{CE(sat)} = -1.0$ V (max) ($I_C = -4$ A, $I_B = -0.1$ A)
- High power dissipation
 - : $P_C = 10$ W ($T_c = 25^\circ\text{C}$), $P_C = 1.0$ W ($T_a = 25^\circ\text{C}$)

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-35	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-8	V
I_C	Collector Current -Continuous	-5	A
P_C	Collector Power Dissipation	1	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	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}$, $I_E = 0$	-35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}$, $I_B = 0$	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}$, $I_C = 0$	-8			V
Collector cut-off current	I_{CBO}	$V_{CB} = -35\text{V}$, $I_E = 0$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -8\text{V}$, $I_C = 0$			-100	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -2\text{V}$, $I_C = -0.5\text{A}$	100		320	
	$h_{FE(2)}$	$V_{CE} = -2\text{V}$, $I_C = -4\text{A}$	70			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -4\text{A}$, $I_B = -0.1\text{A}$			-1	V
Base-emitter voltage	V_{BE}	$V_{CE} = -2\text{V}$, $I_C = -4\text{A}$			-1.5	V
Transition frequency	f_T	$V_{CE} = -2\text{V}$, $I_C = -0.5\text{A}$		170		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		62		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	0	Y
Range	100-200	160-320

Typical Characteristics

2SA1242

