

isc Silicon PNP Power Transistor

2SB1204

DESCRIPTION

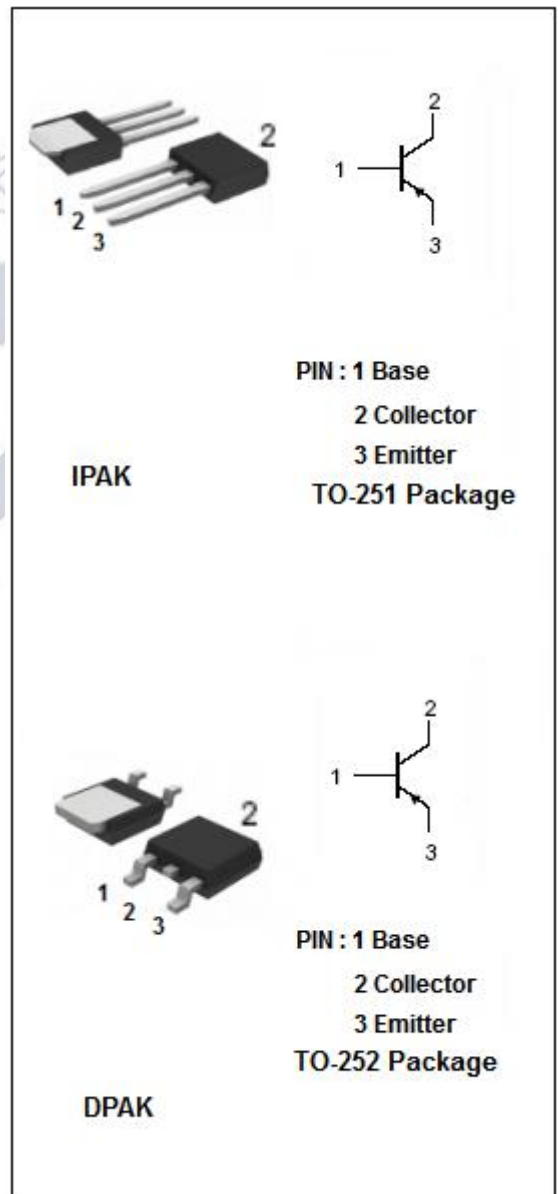
- High current and high f_T
- Small and slim package making it easy to make 2SB1204-used set smaller
- Low collector-to-emitter saturation voltage
- Excellent linearity of h_{FE}
- Fast switching speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- relay drivers, high speed inverters, converters and other general high-current switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-8	A
I_{CP}	Collector Current-Pulse	-12	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	20	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	1.0	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon PNP Power Transistor**2SB1204****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -4A; I_B = -200mA$			-0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -4A; I_B = -200mA$			-1.3	V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -10\mu A; I_B = 0$	-60			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -1mA; I_B = 0$	-50			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -10\mu A; I_C = 0$	-6			V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -40V; I_E = 0$			-1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -4V; I_C = 0$			-1	μA
h_{FE1}	DC Current Gain	$I_C = -0.5A; V_{CE} = -2V$	70		400	
h_{FE2}	DC Current Gain	$I_C = -6A; V_{CE} = -2V$	35			
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -10V; f = 1.0MHz$		95		pF
f_T	Current-Gain—Bandwidth Product	$I_C = -1A; V_{CE} = -5V$		130		MHz

◆ **h_{FE1} Classifications**

Q	R	S	T
70-140	100-200	140-280	200-400

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Outline Drawing

