

Silicon PNP Power Transistor
2SB1204
DESCRIPTION

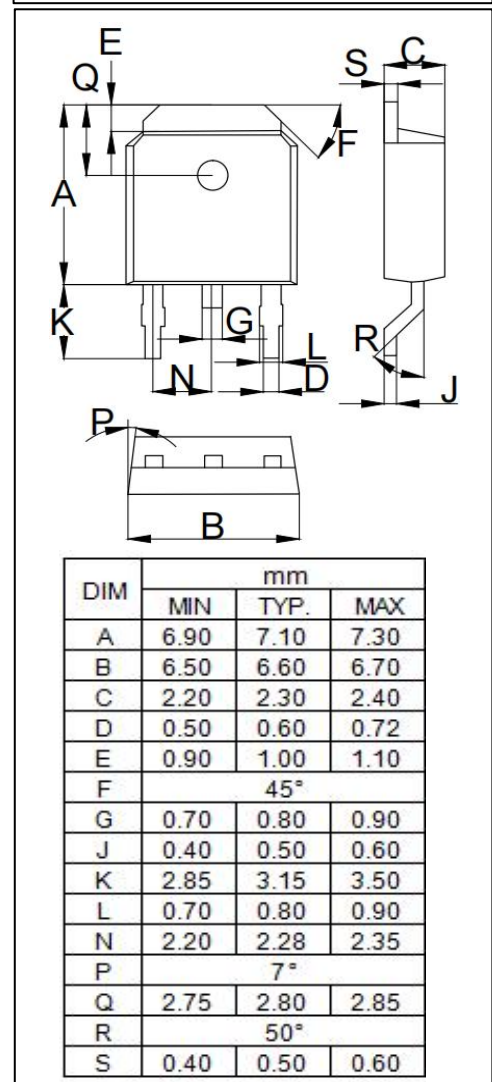
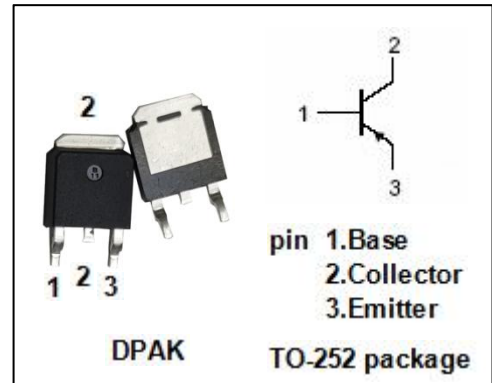
- High current and high f_r
- Low collector-to-emitter saturation voltage
- Excellent linearity of h_{FE}
- Fast switching speed

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	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS (T_c=25°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 = -10uA; 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 = -10uA; I _C = 0	-6	--	--	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -40V; I _E = 0	--	--	-1	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -4V; I _C = 0	--	--	-1	uA
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

◆ hFE Classifications

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

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