

**isc Silicon PNP Power Transistor**

**2SB1205**

**DESCRIPTION**

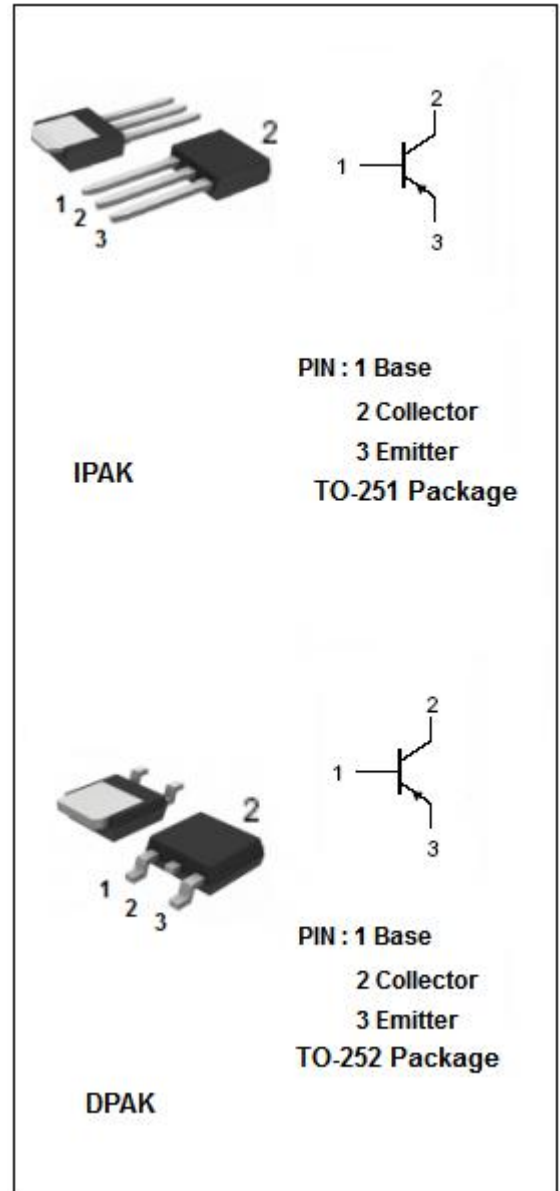
- Large current capacity
- Low collector-to-emitter saturation voltage
- Fast switching speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Strobe, voltage regulations, relay drivers, lamp drivers

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CB0</sub>	Collector-Base Voltage	-25	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-20	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current-Continuous	-5	A
I <sub>CP</sub>	Collector Current-Pulse	-8	A
I <sub>B</sub>	Base Current-Continuous	-0.5	A
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =25°C	10	W
	Collector Power Dissipation @ T <sub>a</sub> =25°C	1.0	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



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## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -3A; I <sub>B</sub> = -60mA			-0.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -3A; I <sub>B</sub> = -60mA			-1.3	V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -10μA; I <sub>B</sub> = 0	-25			V
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -1mA; I <sub>B</sub> = 0	-20			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -10μA; I <sub>C</sub> = 0	-5			V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -20V; I <sub>E</sub> = 0			-0.5	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -4V; I <sub>C</sub> = 0			-0.5	μA
h <sub>FE1</sub>	DC Current Gain	I <sub>C</sub> = -0.5A; V <sub>CE</sub> = -2V	100		400	
h <sub>FE2</sub>	DC Current Gain	I <sub>C</sub> = -4A; V <sub>CE</sub> = -2V	60			
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f= 1.0MHz		60		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -0.2A; V <sub>CE</sub> = -5V		320		MHz

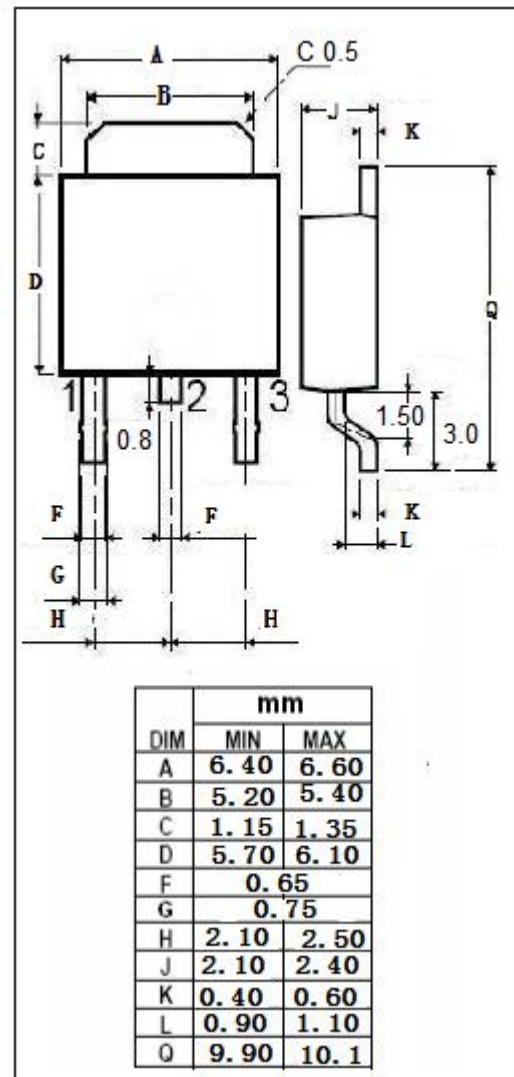
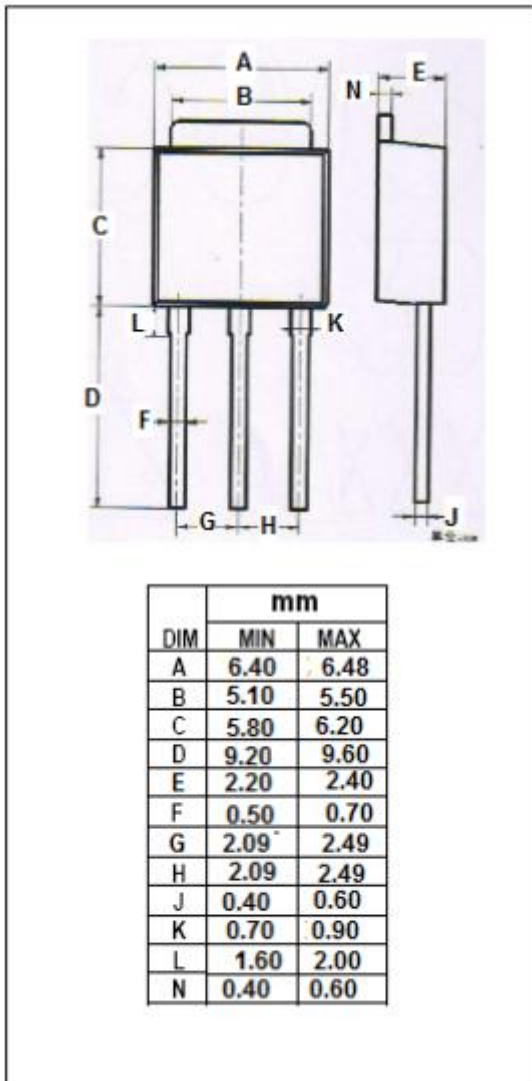
◆ h<sub>FE1</sub> Classifications

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

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Outline Drawing



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