

isc Silicon PNP Power Transistor

2SB1205

DESCRIPTION

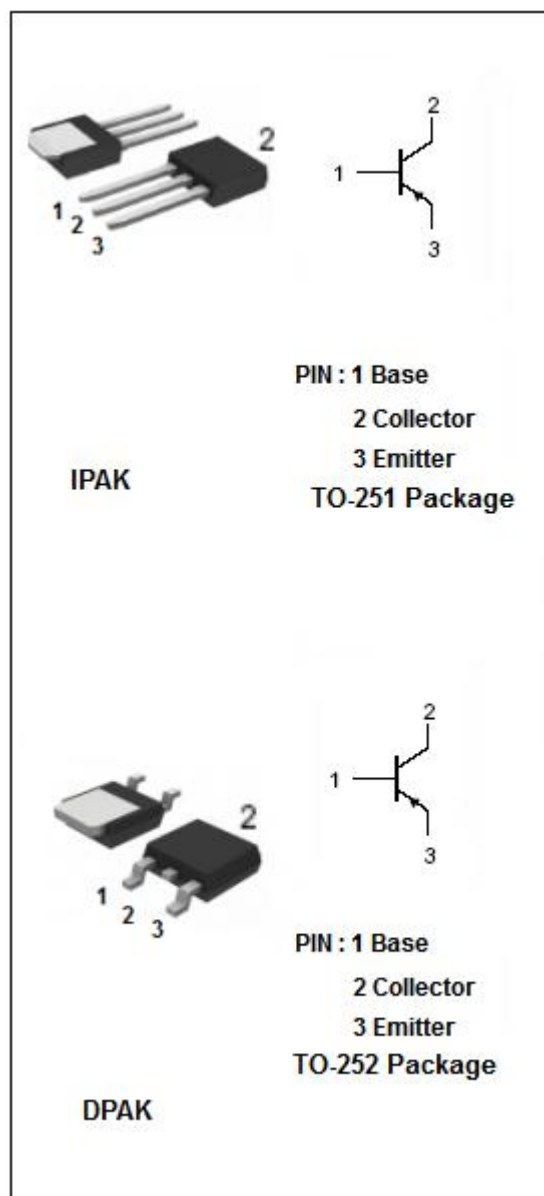
- Large current capacity
- Low collector-to-emitter saturation voltage
- Fast switching speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Strobe, voltage regulations, relay drivers, lamp drivers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-25	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-5	A
I_{CP}	Collector Current-Pulse	-8	A
I_B	Base Current-Continuous	-0.5	A
P_C	Collector Power Dissipation @ $T_c=25^{\circ}\text{C}$	10	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

 $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3A; I_B = -60mA$			-0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -3A; I_B = -60mA$			-1.3	V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -10\mu A; I_B = 0$	-25			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -1mA; I_B = 0$	-20			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -10\mu A; I_C = 0$	-5			V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -20V; I_E = 0$			-0.5	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -4V; I_C = 0$			-0.5	μA
h_{FE1}	DC Current Gain	$I_C = -0.5A; V_{CE} = -2V$	100		400	
h_{FE2}	DC Current Gain	$I_C = -4A; V_{CE} = -2V$	60			
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -10V; f = 1.0MHz$		60		pF
f_T	Current-Gain—Bandwidth Product	$I_C = -0.2A; V_{CE} = -5V$		320		MHz

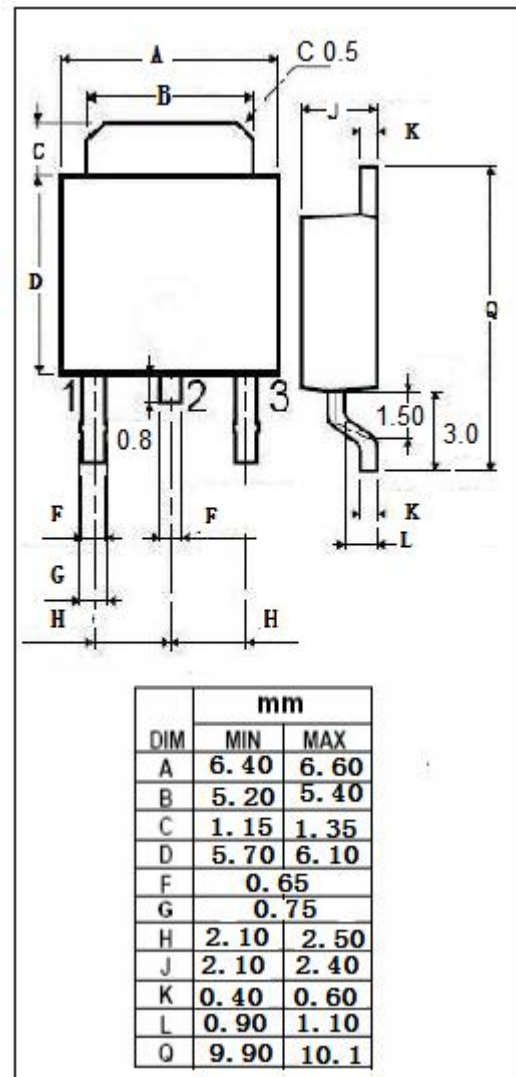
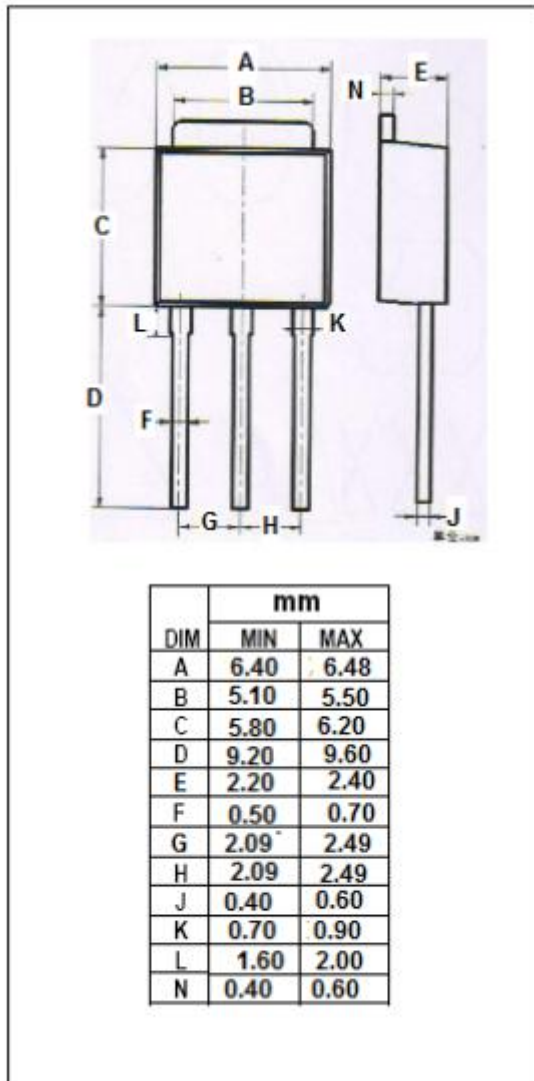
◆ h_{FE1} Classifications

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

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Outline Drawing



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