

**isc Silicon PNP Power Transistor**
**2SA1205**
**DESCRIPTION**

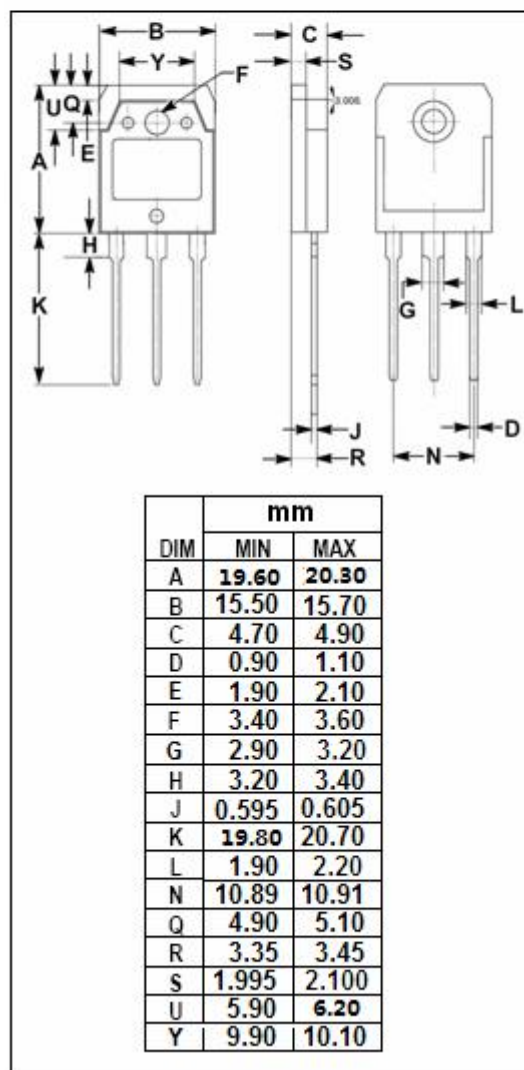
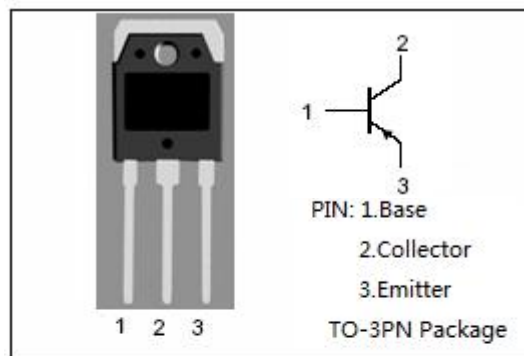
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -50V(\text{Min})$
- Low Collector Saturation Voltage-  
:  $V_{CE(sat)} = -0.5V(\text{Max.}) @ I_C = -5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- For audio and general purpose applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-70	V
$V_{CEO}$	Collector-Emitter Voltage	-50	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-12	A
$I_B$	Base Current-Continuous	-4	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	100	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon PNP Power Transistor****2SA1205****ELECTRICAL CHARACTERISTICS****T<sub>c</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -25mA; I <sub>B</sub> = 0	-50			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -5.0A; I <sub>B</sub> = -0.12A			-0.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -70V; I <sub>E</sub> = 0			-100	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -6V; I <sub>C</sub> = 0			-100	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -5A; V <sub>CE</sub> = -0.5V	40			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>E</sub> = 3A; V <sub>CE</sub> = -12V		20		MHz

## Switching times

t <sub>on</sub>	Turn-on Time	I <sub>C</sub> = -5A; R <sub>L</sub> = 4 Ω, I <sub>B1</sub> = -I <sub>B2</sub> = -0.12A; V <sub>CC</sub> = -20V		0.6		μ s
t <sub>stg</sub>	Storage Time			0.5		μ s
t <sub>f</sub>	Fall Time			0.25		μ s

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