

## isc Silicon NPN Power Transistor

2SC2305

## DESCRIPTION

- With TO-3 Package
- Low collector saturation voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

## APPLICATIONS

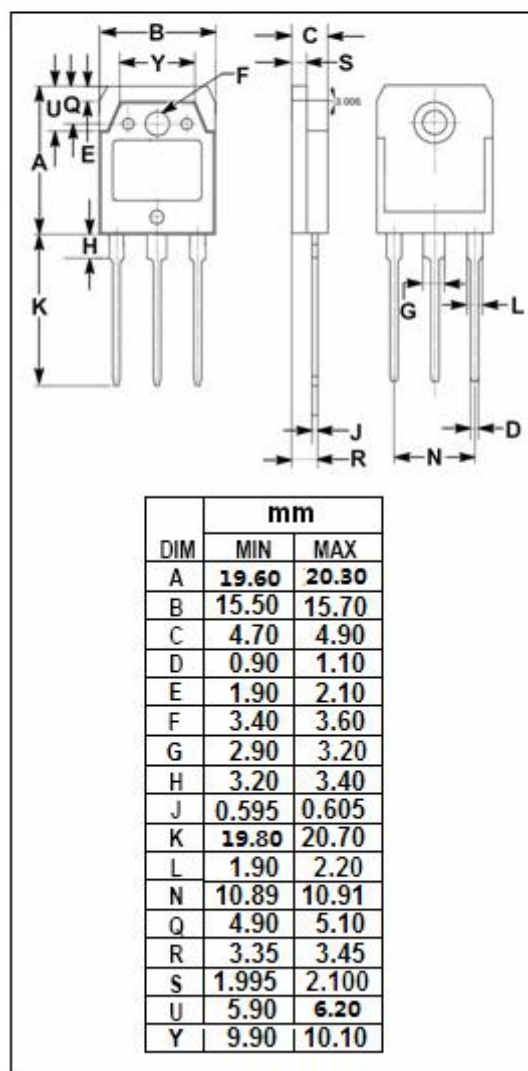
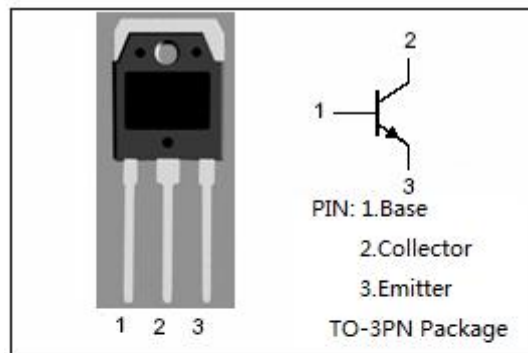
- Designed for color TV horizontal deflection driver

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	400	V
$V_{CEO}$	Collector-Emitter Voltage	400	V
$V_{EBO}$	Emitter-Base Voltage	8	V
$I_C$	Collector Current-Continuous	7	A
$P_C$	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	80	W
$T_J$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^{\circ}\text{C}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.56	$^{\circ}\text{C/W}$



**isc Silicon NPN Power Transistor****2SC2305****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 0.8A		1.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 0.8A		1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> =400V; I <sub>B</sub> = 0		0.1	mA
I <sub>EB0</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 8V; I <sub>C</sub> =0		0.1	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 0.8A ; V <sub>CE</sub> = 5V	15	50	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> =4A ; V <sub>CE</sub> = 5V	10		

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