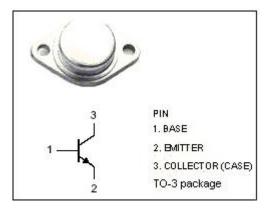


## **isc** Silicon NPN Power Transistor

## 2SC1413A

#### DESCRIPTION

- High Collector-base breakdown voltage:1500V
- Low saturation voltage@5A
- Large area of safe operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

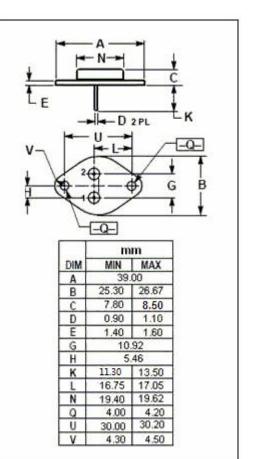


## APPLICATIONS

• Designed for the horizontal output stage in power-transformer-less television receivers.

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>CBO</sub>	Collector-Base Voltage	1500	V	
Vceo	Collector-Emitter Voltage 500		V	
V <sub>EBO</sub>	Emitter-Base Voltage 6		V	
lc	Collector Current-Continuous	5	A	
Pc	Collector Power Dissipation @ $T_C=25^{\circ}C$	50	w	
	Collector Power Dissipation @ T <sub>a</sub> =25℃	20		
ТJ	Junction Temperature	230	°C	
T <sub>stg</sub>	Storage Temperature Range	-45~150	°C	

#### ABSOLUTE MAXIMUM RATINGS(Ta=25℃)



isc website: <u>www.iscsemi.com</u>



## **isc Silicon NPN Power Transistor**

# 2SC1413A

## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	МАХ	UNIT
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 10mA ; I <sub>E</sub> = 0	500			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Vltage	I <sub>E</sub> = 10mA ; I <sub>C</sub> = 0	6			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 5A; I <sub>B</sub> = 1.2A			10	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 5A ; I <sub>B</sub> = 1.2A			2	V
I <sub>CBX</sub>	Collector Cutoff Current	V <sub>CB</sub> = 1500V; V <sub>EB</sub> = 1.5V			1	mA

## **NOTICE:**

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