

**isc Silicon NPN Power Transistor**

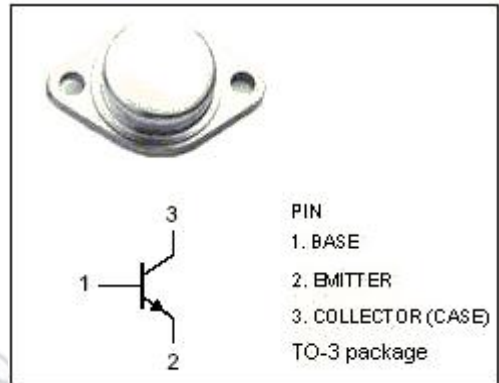
**2SC1413A**

**DESCRIPTION**

- High Collector-base breakdown voltage:1500V
- Low saturation voltage@5A
- Large area of safe operation

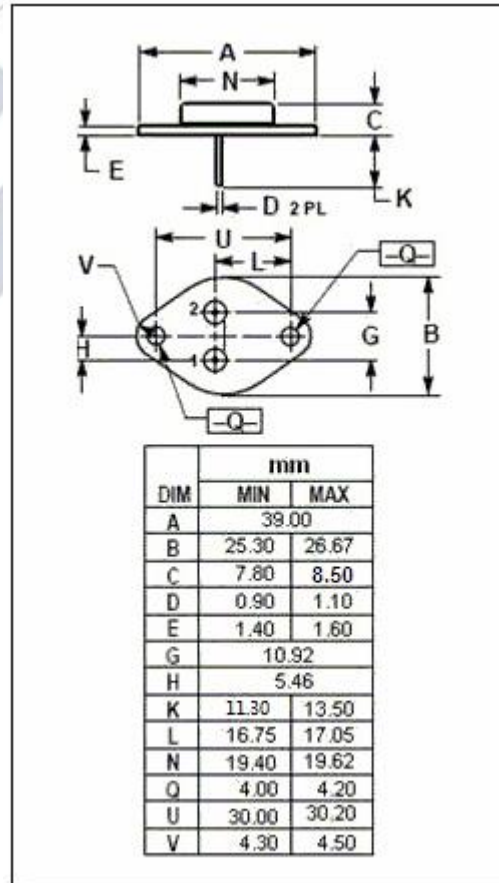
**APPLICATIONS**

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



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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CB0</sub>	Collector-Base Voltage	1500	V
V <sub>CEO</sub>	Collector-Emitter Voltage	500	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>c</sub>	Collector Current-Continuous	5	A
P <sub>c</sub>	Collector Power Dissipation @ T <sub>c</sub> =25°C	50	W
	Collector Power Dissipation @ T <sub>a</sub> =25°C	20	
T <sub>J</sub>	Junction Temperature	230	°C
T <sub>stg</sub>	Storage Temperature Range	-45~150	°C



**isc Silicon NPN Power Transistor****2SC1413A****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=10\text{mA}; I_E=0$	500			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\text{mA}; I_C=0$	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=1.2\text{A}$			10	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=1.2\text{A}$			2	V
$I_{CBX}$	Collector Cutoff Current	$V_{CB}=1500\text{V}; V_{EB}=1.5\text{V}$			1	mA