

# **isc** Silicon PNP Power Transistor

# 2SA1044

## DESCRIPTION

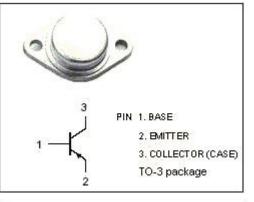
- High Collector-Emitter Breakdown Voltage-V<sub>(BR)CEO</sub>= -70V(Min)
- High Current Capability
- Wide Area of Safe Operation
- Complement to Type 2SC2434
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

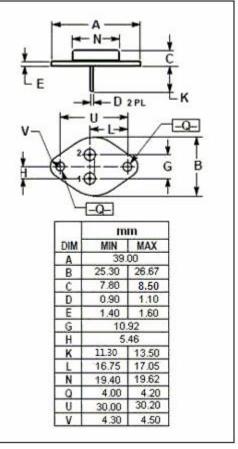
## **APPLICATIONS**

- Power switching applications
- High frequency power amplifier
- DC-DC converters

## ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	-70	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-70	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
lc	Collector Current-Continuous	-30	A
IB	Base Current-Continuous	-10	A
Pc	Collector Power Dissipation @ $T_c$ =25 $^{\circ}C$	150	W
TJ	Junction Temperature	175	°C
T <sub>stg</sub>	Storage Temperature Range	-65~175	°C





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

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# ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	МАХ	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	$I_{C}$ = -10mA; $R_{BE}$ = $\infty$	-70			V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -50 μ Α; I <sub>E</sub> = 0	-70			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -1mA ; I <sub>C</sub> = 0	-5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -15A; I <sub>B</sub> = -1.5A			-1.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -15A; I <sub>B</sub> = -1.5A			-2.0	V
Ісво	Collector Cutoff Current	V <sub>CB</sub> = -70V ; I <sub>E</sub> = 0			-50	μA
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = -70V ; I <sub>E</sub> = 0			-1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -4V; I <sub>C</sub> = 0			-50	μA
h <sub>FE-1</sub>	DC Current Gain	Ic= -3A ; Vce= -5V	35		200	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -30A ; V <sub>CE</sub> = -5V	10			

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