

# **isc Silicon NPN Power Transistor**

2SD554

### **DESCRIPTION**

- Contunuous Collector Current-I<sub>C</sub>= 2A
- Power Dissipation-P<sub>D</sub>=30W @T<sub>C</sub>= 25 °C
- Collector-Emitter Saturation Voltage-
  - :  $V_{CE(sat)}$ = 2.0 V(Max)@  $I_C$  = 1A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

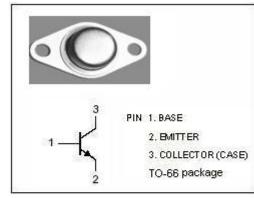


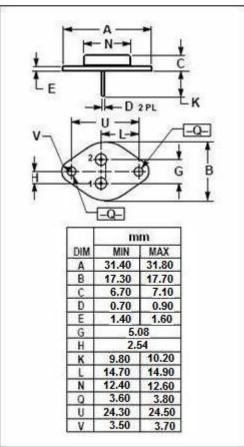
### **APPLICATIONS**

• Designed for high-speed switching and linear amplifier application for high-voltage operational amplifiers, switching regulators, converters, deflection stages and high fidelity amplifiers.

## ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25℃)

SYMBOL	PARAMETER VALUE		UNIT
$V_{\text{CBO}}$	Collector-Base Voltage	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	250	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
Ic	Collector Current-Continuous	Α	
I <sub>CM</sub>	Collector Current-Peak	5.0	Α
l <sub>Β</sub>	Base Current	1.0	Α
Pc	Collector Power Dissipation@T <sub>C</sub> =25℃	30	W
TJ	Junction Temperature 150		$^{\circ}$
T <sub>stg</sub>	Storage Temperature -65~150		${\mathbb C}$







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#### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 50mA ; I <sub>B</sub> = 0	250		V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 1A; I <sub>B</sub> = 0.1A		2.0	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	I <sub>C</sub> = 1A; I <sub>B</sub> = 0.1A		1.5	V
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 250V; I <sub>B</sub> = 0		1.0	mA
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 250V; I <sub>E</sub> = 0		0.1	mA
ІЕВО	Emitter Cutoff Current	V <sub>EB</sub> = 6V; I <sub>C</sub> =0		0.1	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 0.3A ; V <sub>CE</sub> = 5V	60		
h <sub>FE-2</sub>	DC Current Gain	Ic= 1A; V <sub>CE</sub> = 5V	10	150	

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