

# **isc Silicon NPN Power Transistors**

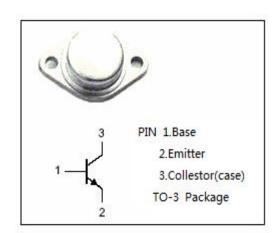
## **DESCRIPTION**

**High Power Dissipation** 

- · Collector-Emitter Sustaining Voltage-
  - : V<sub>CEO(SUS)</sub>= 110V(Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

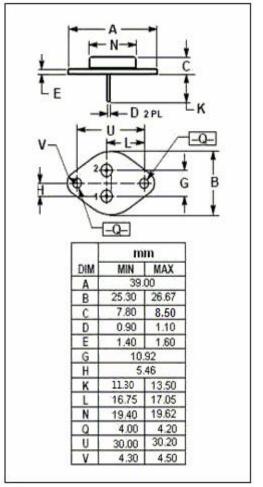
### **APPLICATIONS**

• Designed for use as either driver or output unit applications in audio amplifier circuits.



# ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	MAX	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	130	V
V <sub>CER</sub>	Collector-Emitter Voltage R <sub>BE</sub> = 100 Ω	130	V
V <sub>CEO</sub>	Collector-Emitter Voltage	110	V
$V_{EBO}$	Emitter-Base Voltage	5	V
Ic	Collector Current-Continuous	7	Α
I <sub>B</sub>	Base Current-Continuous	2	Α
Pc	Collector Power Dissipation @T <sub>C</sub> =25°C	on 150	
T <sub>j</sub>	Junction Temperature	200	$^{\circ}$ C
T <sub>stg</sub>	Storage Temperature Range -65~200		$^{\circ}$





## isc Silicon NPN Power Transistors

**BD550** 

### **ELECTRICAL CHARACTERISTICS**

Tc=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 50mA ; I <sub>B</sub> = 0	110			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 0.5A			2	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 4A ;V <sub>CE</sub> = 4V			1.75	V
I <sub>CER</sub>	Collector Cutoff Current	V <sub>CE</sub> = 110V; R <sub>BE</sub> = 100 Ω			1	mA
ICEO	Collector Cutoff Current	V <sub>CE</sub> = 95V; I <sub>B</sub> = 0			5	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0			1	mA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 4A ; V <sub>CE</sub> = 4V	15		75	
f⊤	Current Gain-Bandwidth Product	I <sub>C</sub> = 0.2A; V <sub>CE</sub> = 10V		5		MHz

#### **NOTICE:**

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