

## isc Silicon NPN Power Transistor

2N3055B

#### **DESCRIPTION**

- Excellent Safe Operating Area
- DC Current Gain-h<sub>FE</sub>=70-140 @I<sub>C</sub> = 4A
- · Collector-Emitter Saturation Voltage-
  - :  $V_{CE(sat)}$ = 1.1 V(Max)@  $I_C$  = 4A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## **APPLICATIONS**

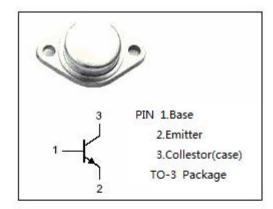
Designed for general-purpose switching and amplifier applications

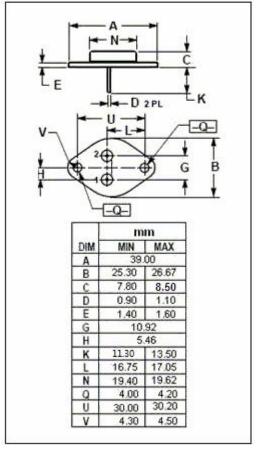
# ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	100	V
Vceo	Collector-Emitter Voltage	60	V
V <sub>EBO</sub>	Emitter-Base Voltage	7	V
Ic	Collector Current-Continuous	15	А
l <sub>Β</sub>	Base Current	7	А
Pc	Collector Power Dissipation@T <sub>C</sub> =25°C 115		W
T <sub>J</sub> , T <sub>stg</sub>	Operating and Storage Junction Temperature Range -65~150		$^{\circ}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance,Junction to Case	1.52	°C/W





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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> =30mA ; I <sub>B</sub> =0	60		V
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 0.4A		1.1	V
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 10A; I <sub>B</sub> = 3.3A		3.0	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 4A; V <sub>CE</sub> = 4V		1.5	V
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 30V; I <sub>B</sub> =0		0.7	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 7.0V; I <sub>C</sub> =0		5.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 4A; V <sub>CE</sub> = 4V	70	140	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 10A; V <sub>CE</sub> = 4V	10		
I <sub>s/b</sub>	Second Breakdown Collector Current with Base Forward Biased	V <sub>CE</sub> = 40V,t= 1.0s,Nonrepetitive	2.87		А

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