

# **isc Silicon NPN Power Transistor**

### **DESCRIPTION**

- · Collector-Emitter Sustaining Voltage-
  - : V<sub>CEO(SUS)</sub>= 250V(Min.)
- · Collector Saturation Voltage-
  - : V<sub>CE(sat)</sub>= 1.5V(Max.)@ I<sub>C</sub>= 2A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



• Designed for use in color TV receiver's chopper supply.

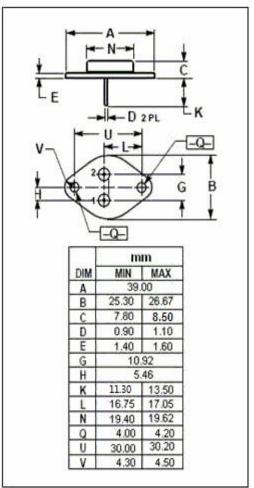
# 3 PIN 1.Base 2.Emitter 3.Collestor(case) TO-3 Package

# ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	750	V
V <sub>CEO</sub>	Collector-Emitter Voltage	250	V
V <sub>EBO</sub>	Emitter-Base Voltage	7	V
Ic	Collector Current-Continuous	3	А
Pc	Collector Power Dissipation @ T <sub>C</sub> = 50 °C	30	W
TJ	Junction Temperature	150	$^{\circ}$
T <sub>stg</sub>	Storage Temperature Range	-65~150	$^{\circ}$

# THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	2.33	°C/W





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**BU133** 

### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=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	250			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 10mA; I <sub>C</sub> = 0	7			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 2A; I <sub>B</sub> = 0.5A			1.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 2A; I <sub>B</sub> = 0.5A			1.4	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 750V; I <sub>E</sub> = 0			100	μА
ІЕВО	Emitter Cutoff Current	V <sub>EB</sub> = 7V; I <sub>C</sub> = 0			100	μА
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V	15		80	
f⊤	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.2A; V <sub>CE</sub> = 10V		8		MHz

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