

## **isc** Silicon NPN Power Transistor

# 2SC5242

### DESCRIPTION

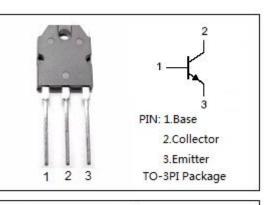
- High Collector Breakdown Voltage-: V<sub>(BR)CEO</sub>= 230V(Min.)
- Good Linearity of hFE
- Complement to Type 2SA1962
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

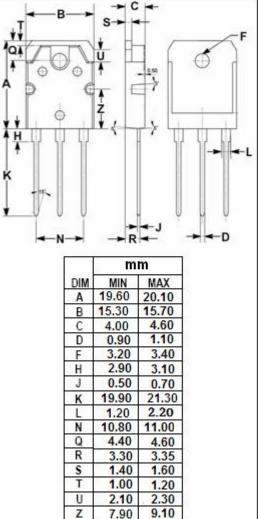
#### **APPLICATIONS**

- · Power amplifier applications
- Recommend for 80W high fidelity audio frequency
  amplifier output stage applications

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>CBO</sub>	Collector-Base Voltage	230	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	230	V	
V <sub>EBO</sub>	Emitter-Base Voltage	5	V	
lc	Collector Current-Continuous	15	A	
IB	Base Current-Continuous	1.5	А	
Pc	Collector Power Dissipation @ $T_c$ =25 °C	130	W	
TJ	Junction Temperature	150	°C	
T <sub>stg</sub>	Storage Temperature Range	Temperature Range -55~150		





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

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## **ELECTRICAL CHARACTERISTICS**

#### $T_{\text{C}}\text{=}25^{\circ}\!\!\!\mathrm{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР.	МАХ	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 50mA ; I <sub>B</sub> = 0	230			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 8Α; I <sub>B</sub> = 0.8Α			3.0	V
$V_{\text{BE(on)}}$	Base-Emitter On Voltage	I <sub>C</sub> = 7A ; V <sub>CE</sub> = 5V			1.5	V
Ісво	Collector Cutoff Current	V <sub>CB</sub> = 230V ; I <sub>E</sub> = 0			5	μA
Іево	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0			5	μA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 1A ; V <sub>CE</sub> = 5V	55		160	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 7A ; V <sub>CE</sub> = 5V	35			

### h<sub>FE-1</sub> Classifications

R	0	
55-110	80-160	

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