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Silicon NPN Power Transistor

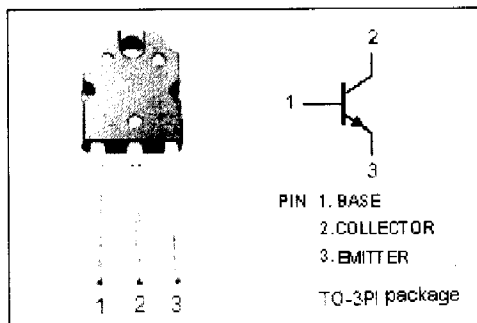
2SC5242

DESCRIPTION

- High Collector Breakdown Voltage-
 : $V_{(BR)CEO} = 230V(\text{Min.})$
- Good Linearity of h_{FE}
- Complement to Type 2SA1962

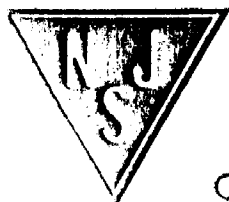
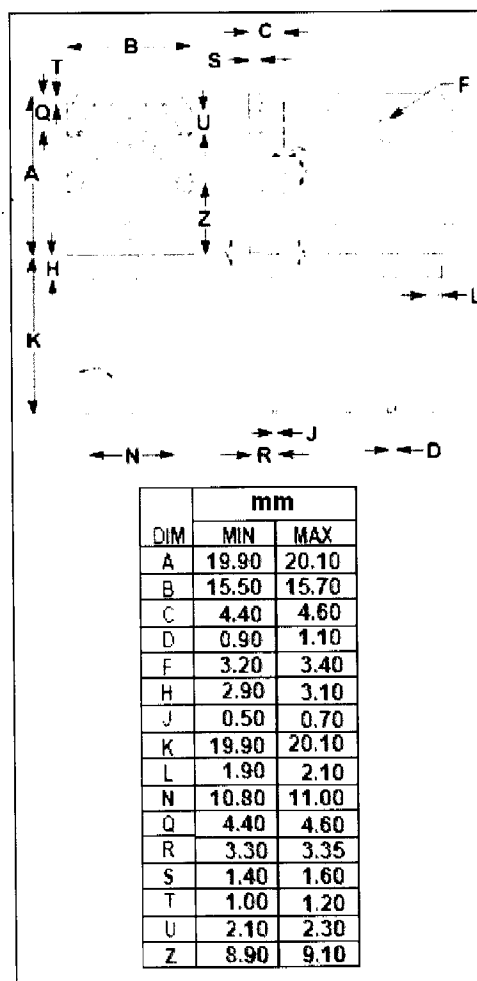
APPLICATIONS

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



ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	230	V
V_{CEO}	Collector-Emitter Voltage	230	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current-Continuous	1.5	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	130	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

Silicon NPN Power Transistor**2SC5242****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 50mA; I _B = 0	230			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 8A; I _B = 0.8A			3.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 7A; V _{CE} = 5V			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 230V; I _E = 0			5	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			5	μ A
h _{FE-1}	DC Current Gain	I _C = 1A; V _{CE} = 5V	55		160	
h _{FE-2}	DC Current Gain	I _C = 7A; V _{CE} = 5V	35			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 1.0MHz		200		pF
f _T	Current-Gain—Bandwidth Product	I _C = 1A; V _{CE} = 5V		30		MHz

◆ **h_{FE-1} Classifications**

R	O
55-110	80-160