

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960
2SC2944

Silicon NPN Power Transistor**DESCRIPTION**

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 200V(\text{Min})$
- High Switching Speed
- Low Collector Saturation Voltage

APPLICATIONS

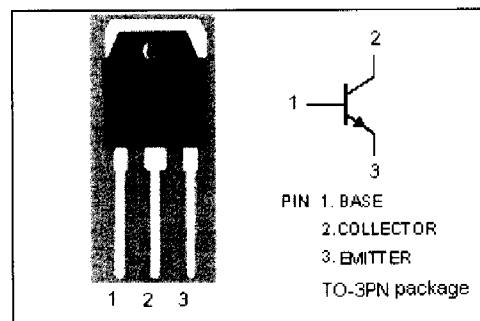
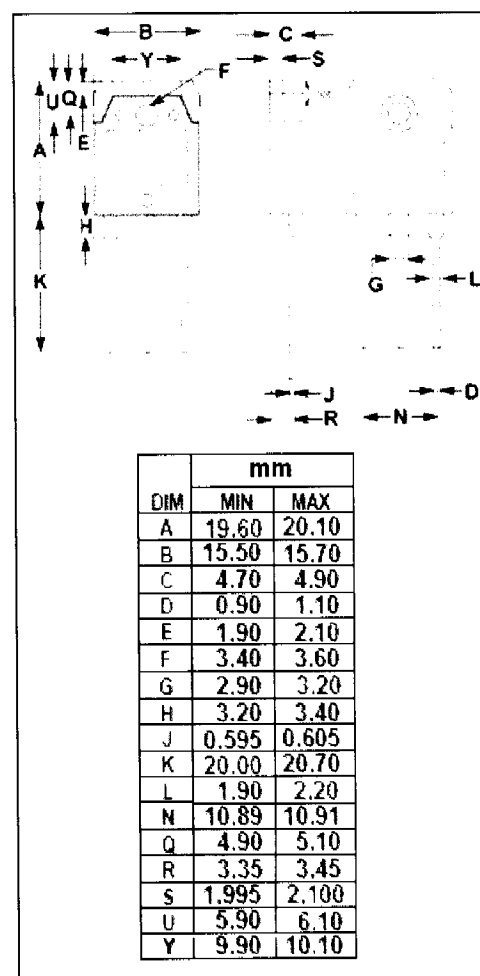
- Color and B/W TV power supply
- Active power filter
- Industrial use power supply
- General purpose power amplifiers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	250	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base voltage	7	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.25	$^\circ\text{C/W}$



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**2SC2944****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 = 10mA; I _B = 0	200			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 0.1mA; I _E = 0	250			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 0.1mA; I _C = 0	7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 6A; I _B = 1.2A			0.8	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 6A; I _B = 1.2A			1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 250V; I _E =0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C =0			0.1	mA
h _{FE}	DC Current Gain	I _C = 2A; V _{CE} = 5V	20		80	

Switching times

t _{on}	Turn-on Time	I _C = 10A, I _{B1} = -I _{B2} = 2A R _L = 5Ω; P _W =20μ s Duty Cycle ≤ 2%			0.8	μ s
t _{stg}	Storage Time				1.5	μ s
t _f	Fall Time				0.4	μ s