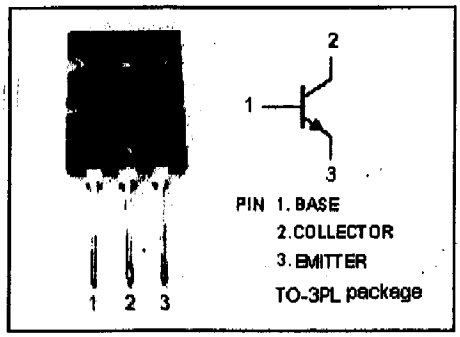
New Jersey Semi-Conductor Products, Inc.

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

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

Silicon NPN Power Transistor — 2SC3281



DESCRIPTION

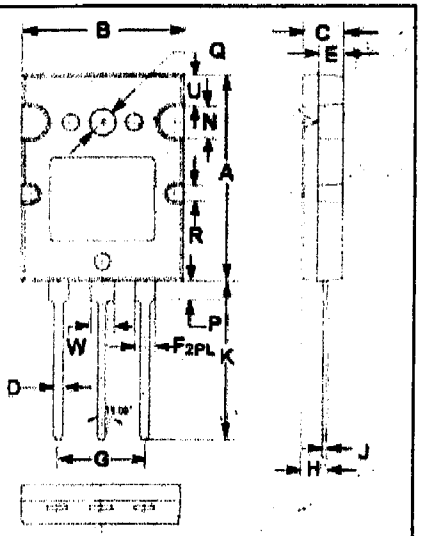
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 200V(Min)
- Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 3.0V(Max)@ I_C= 10A, I_B= 1A
- High Power Dissipation

APPLICATIONS

- Power amplifier applications
- Recommend for 100W high fidelity audio frequency amplifier output stage applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	200	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℃	150	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	25.50	26.50
B	19.80	20.20
C	4.50	5.50
D	0.90	1.10
E	2.80	3.20
F	2.40	2.60
G	10.80	11.00
H	3.10	3.30
J	0.50	0.70
K	20.00	21.00
N	3.90	4.10
P	2.40	2.60
Q	3.10	3.50
R	1.90	2.10
U	3.90	4.10
W	2.90	3.10

Silicon NPN Power Transistor — 2SC3281

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{BR(CEO)}$	Collector-Emitter Breakdown Voltage	I_C= 50mA ; I_B= 0	200			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 10A, I_B= 1A			3.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 8A ; V_{CE}= 5V			1.5	V
I_{CEO}	Collector Cutoff Current	V_{CB}= 200V , I_E=0			5.0	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V, I_C=0			5.0	mA
h_{FE-1}	DC Current Gain	I_C= 1A , V_{CE}= 5V	55		160	
h_{FE-2}	DC Current Gain	I_C= 8A ; V_{CE}= 5V	35			
f_T	Current-Gain—Bandwidth Product	I_C= 1A V_{CE}= 5V		30		MHz
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V f_{test}= 1MHz		270		pF

◆ **h_{FE-1} Classifications**

R	O
55-110	80-160