New Jersey Semi-Conductor Products, Inc.

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

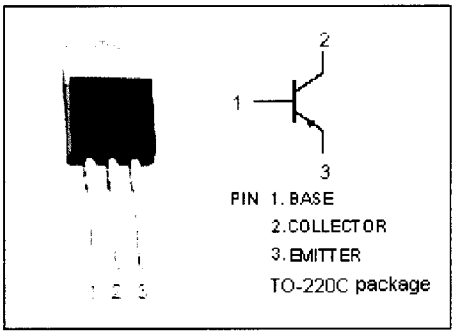
TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

Silicon PNP Power Transistor

2SA1008

DESCRIPTION

- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= -0.6V(Max.)@ I_C= -1A
- Fast Switching Speed
- Complement to Type 2SC2331

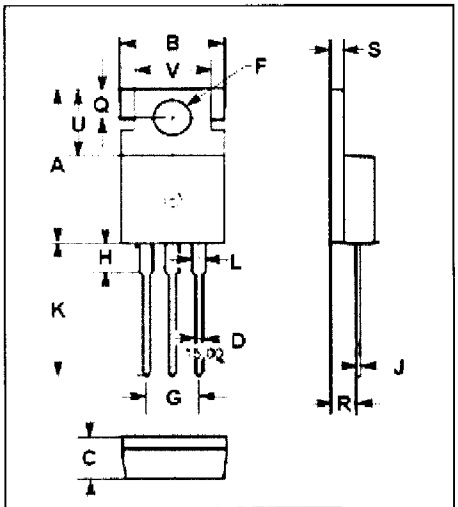


APPLICATIONS

- Designed for use as a driver in devices such as switching regulators, DC/DC converters, and high-frequency power amplifiers.

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-7.0	V
I_C	Collector Current-Continuous	-2.0	A
I_{CM}	Collector Current-Peak	-4.0	A
P_C	Collector Power Dissipation@ T_a=25℃	1.5	W
	Collector Power Dissipation@ T_C=25℃	15	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.90	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	13.00	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= -1.0A; I_B= -0.1A, L=1mH	-100		V
$V_{CEX(SUS)-1}$	Collector-Emitter Sustaining Voltage	I_C= -1.0A; I_{B1}=-I_{B2}= -0.1A, $V_{BE(OFF)}$=5.0V, L=180μ H, clamped	-100		V
$V_{CEX(SUS)-2}$	Collector-Emitter Sustaining Voltage	I_C= -2A; I_{B1}= -0.2A; I_{B2}= 0.1A, $V_{BE(OFF)}$= 5.0V, L= 180μ H, clamped	-100		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -1A; I_B= -0.1A		-0.6	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -1A; I_B= -0.1A		-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -100V; I_E= 0		-10	μ A
I_{CER}	Collector Cutoff Current	V_{CE}= -100V ; R_{BE}= 51Ω ,T_a=125℃		-1.0	mA
I_{CEX}	Collector Cutoff Current	V_{CE}= -100V; $V_{BE(off)}$= -1.5V V_{CE}= -100V; $V_{BE(off)}$= -1.5V,T_a=125℃		-10 -1.0	μ A mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5.0V; I_C= 0		-10	μ A
h_{FE-1}	DC Current Gain	I_C= -0.1A; V_{CE}= -5V	40		
h_{FE-2}	DC Current Gain	I_C= -1.0A; V_{CE}= -5V	40	200	

Switching Times

t_{on}	Turn-On Time	I_C= -1.0A ,R_L= 50Ω , I_{B1}= -I_{B2}= -0.1A, V_{CC}≈-50V		0.5	μ s
t_{stg}	Storage Time			1.5	μ s
t_f	Fall Time			0.5	μ s

◆ **h_{FE-2} Classifications**

M	L	K
40-80	60-120	100-200