

Silicon PNP Power Transistor

2SA1942

DESCRIPTION

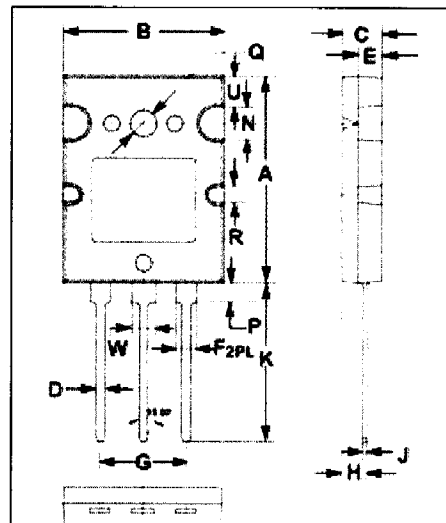
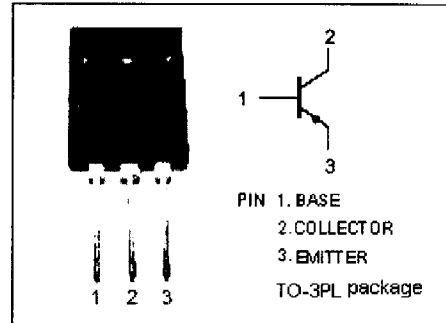
- High Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = -160V(\text{Min})$
- Complement to Type 2SC5199

APPLICATIONS

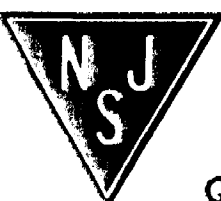
- Power amplifier applications
- Recommend for 80W high fidelity audio frequency amplifier output stage applications

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	-160	V
V _{CEO}	Collector-Emitter Voltage	-160	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current-Continuous	-12	A
I _B	Base Current-Continuous	-1.2	A
P _C	Collector Power Dissipation @ T _C =25°C	120	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



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



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ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{mA}; I_B = 0$	-160			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -8.0\text{A}; I_B = -0.8\text{A}$			-2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -6\text{A}; V_{CE} = -5\text{V}$			-1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -160\text{V}; I_E = 0$			-5	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-5	μA
h_{FE-1}	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -5\text{V}$	55		160	
h_{FE-2}	DC Current Gain	$I_C = -6\text{A}; V_{CE} = -5\text{V}$	35			
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f = 1.0\text{MHz}$		320		pF
f_T	Current-Gain—Bandwidth Product	$I_C = -1\text{A}; V_{CE} = -5\text{V}$		30		MHz

◆ h_{FE-1} Classifications

R	O
55-110	80-160