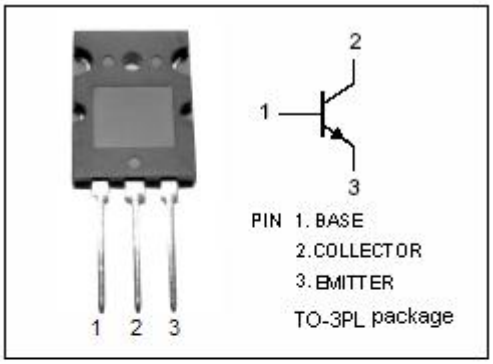
isc Silicon NPN Power Transistor 2SC5199



DESCRIPTION

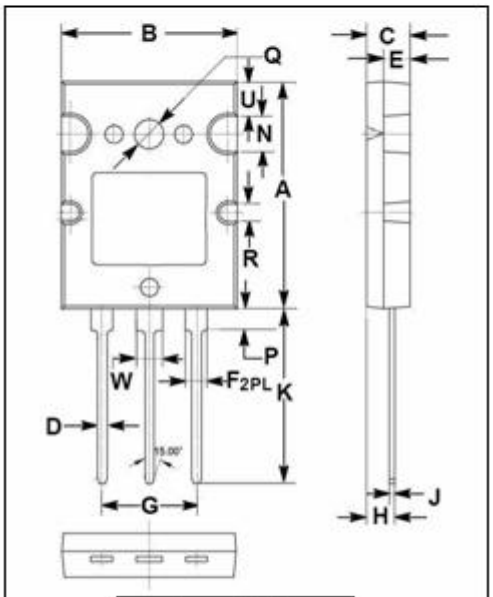
- High Current Capability
- High Power Dissipation
- High Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 160V(Min)
- Complement to Type 2SA1942
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃	120	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	4.50
P	2.40	2.60
Q	3.10	3.50
R	1.90	2.60
U	3.90	4.10
W	2.90	3.25

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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	160			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 8.0A; I_B= 0.8A			2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 6A; V_{CE}= 5V			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 160V; I_E= 0			5	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			5	μA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 5V	55		160	
h_{FE-2}	DC Current Gain	I_C= 6A; V_{CE}= 5V	35			
C_{OB}	Output Capacitance	I_E=0; V_{CB}= 10V; f_{test}= 1.0MHz		170		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

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