New Jersey Semi-Conductor Products, Inc.

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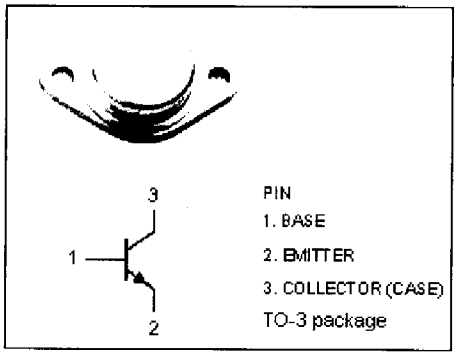
Silicon NPN Power Transistor — 2N5734

DESCRIPTION

- Excellent Safe Operating Area
- High DC Current Gain-h_{FE}=30-300(Min)@I_C = 10A
- Low Saturation Voltage-
  : $V_{CE(sat)}$= 1.2V(Max)@ I_C = 20A



APPLICATIONS

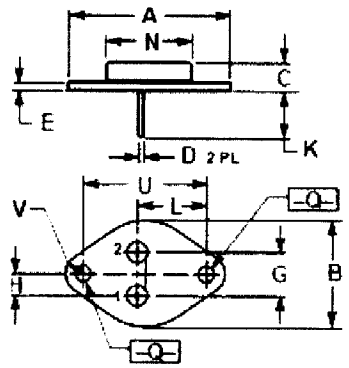
- Designed for linear amplifiers, series pass regulators, and inductive switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	30	A
I_B	Base Current-Continuous	7.5	A
P_C	Collector Power Dissipation @T_C=25℃	150	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.0	℃/W



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 200mA ; I_B= 0	80		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 20A; I_B= 2A		1.2	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 30A; I_B= 6A		4.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 20A; I_B= 2A		1.5	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 80V; I_B= 0		1.0	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 100V; I_E= 0		0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0		0.1	mA
h_{FE}	DC Current Gain	I_C= 10A ; V_{CE}= 2V	30	300	
f_T	Current-Gain—Bandwidth Product	I_C= 1A ; V_{CE}= 10V	30		MHz