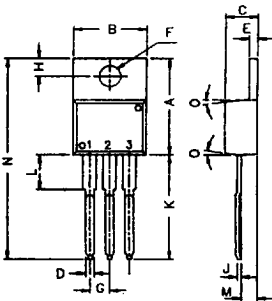
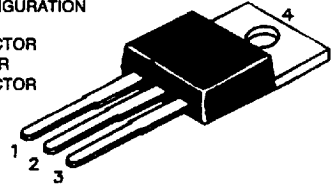


SJE1349 NPN PLASTIC POWER TRANSISTOR

Power Linear and Switching Applications

PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER
4. COLLECTOR



ALL DIMENSIONS ARE IN M.M.

DIM	MIN	MAX
A	14,42	16,51
B	9,63	10,67
C	3,56	4,83
D	—	0,90
E	1,15	1,40
F	3,75	3,88
G	2,29	2,79
H	2,54	3,43
J	—	0,56
K	12,70	14,73
L	—	6,35
M	2,03	2,92
N	—	31,24
O	7	DEG

ABSOLUTE MAXIMUM RATINGS

Collector-base voltage (emitter open)	V_{CBO}	max.	73 V
Collector-emitter voltage (open base)	V_{CEO}	max.	63 V
Collector current	I_C	max.	6 A
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_{tot}	max.	65 W
Junction temperature	T_j	max.	150 $^\circ\text{C}$
Collector-emitter saturation voltage $I_C = 4\text{ A}; I_B = 480\text{ mA}$	V_{CEsat}	max.	1.07 V
D.C. current gain $I_C = 4\text{ A}; V_{CE} = 4\text{ V}$	h_{FE}	min	43

RATINGS (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Limiting values

Collector-base voltage (emitter open)	V_{CBO}	max.	73 V
Collector-emitter voltage (open base)	V_{CEO}	max.	63 V
Emitter-base voltage (open collector)	V_{EBO}	max.	7.0 V
Collector current	I_C	max.	6.0 A
Collector current (Peak)	I_{CM}	max.	10 A

Base current
 Total power dissipation up to $T_C = 25^\circ\text{C}$
 Junction temperature
 Storage temperature

I_B	max.	2.0 A
P_{tot}	max.	65 W
T_j	max.	150 $^\circ\text{C}$
T_{stg}		-65 to +150 $^\circ\text{C}$

THERMAL RESISTANCE

From junction to ambient
 From junction to case

$R_{th\ j-a}$	=	62.5 $^\circ\text{C/W}$
$R_{th\ j-c}$	=	1.92 $^\circ\text{C/W}$

CHARACTERISTICS

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

Collector cutoff current

$I_E = 0$; $V_{CB} = 63\text{ V}$
 $V_{BE} = 0$; $V_{CE} = 73\text{ V}$

I_{CBO}	max.	0.3 mA
I_{CES}	max.	0.3 mA

Emitter cut-off current

$I_C = 0$; $V_{EB} = 5.2\text{ V}$

I_{EBO}	max.	0.9 mA
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Breakdown voltages

$I_C = 30\text{ mA}$; $I_B = 0$
 $I_C = 1\text{ mA}$; $I_E = 0$
 $I_E = 1\text{ mA}$; $I_C = 0$

$V_{CEO(sus)}^*$	min.	63 V
V_{CBO}	min.	73 V
V_{EBO}	min.	7.0 V

Saturation voltages

$I_C = 4\text{ A}$; $I_B = 480\text{ mA}$

V_{CEsat}^*	max.	1.07 V
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$I_C = 10\text{ A}$; $I_B = 1\text{ A}$

V_{CEsat}^*	max.	3.0 V
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D.C. current gain

$I_C = 4\text{ A}$; $V_{CE} = 4\text{ V}$

h_{FE}^*	min.	43
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Small-signal current gain

$I_C = 0.5\text{ A}$; $V_{CE} = 10\text{ V}$; $f = 1\text{ KHz}$

h_{fe}	min.	20
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Transition frequency

$I_C = 0.5\text{ A}$; $V_{CE} = 10\text{ V}$; $f = 1\text{ MHz}$

f_T	min.	3.0 MHz
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* Pulse test: pulse width $\leq 300\text{ }\mu\text{s}$; duty cycle $\leq 2\%$.