

Features

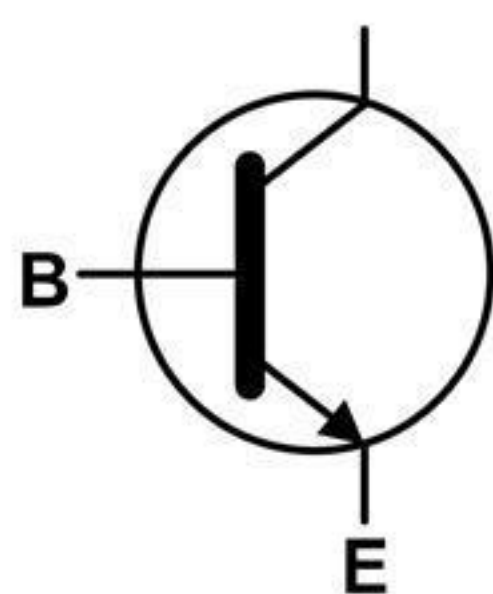
- High voltage and high current
: $V_{CEO} = 50V$, $I_C = 100mA$ (max)
- Excellent h_{FE} linearity : $h_{FE} (I_C = 0.1 mA)/h_{FE} (I_C = 2 mA) = 0.95$ (typ.)
- High h_{FE} : $h_{FE} = 120$ to 400

DFN1006-3L



Bottom View

Package and Pin Configuration



Device Symbol



Top View
Device Schematic

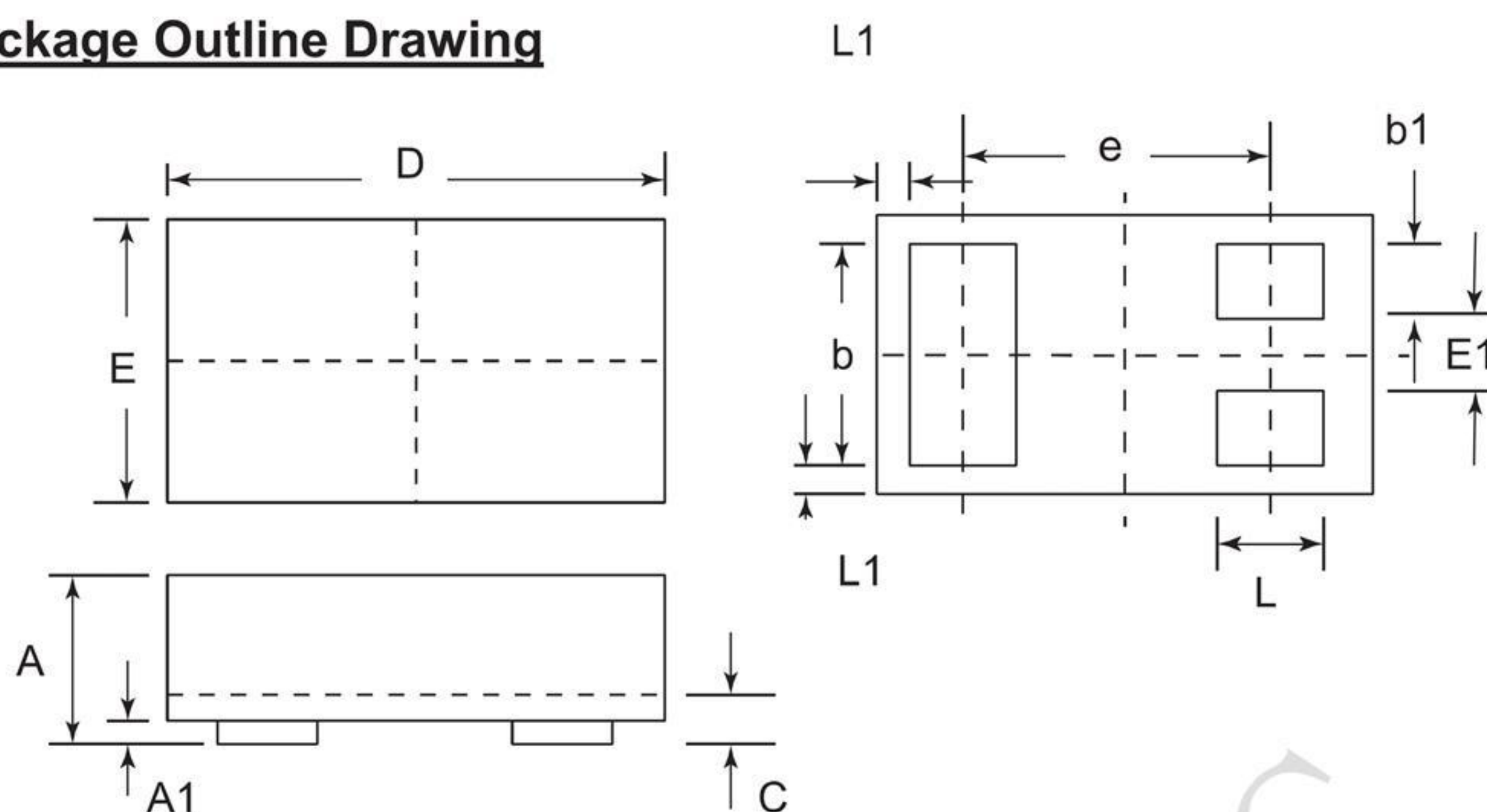
Absolute Maximum Ratings ($T_A = 25^\circ C$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	100	mA
Base current	I_B	50	mA
Collector power dissipation	P_C	100	mW
Junction temperature	T_J	150	$^\circ C$
Storage temperature range	T_{STG}	-55~ +150	$^\circ C$

Electrical Characteristics ($T_A = 25^\circ C$ unless otherwise noted)

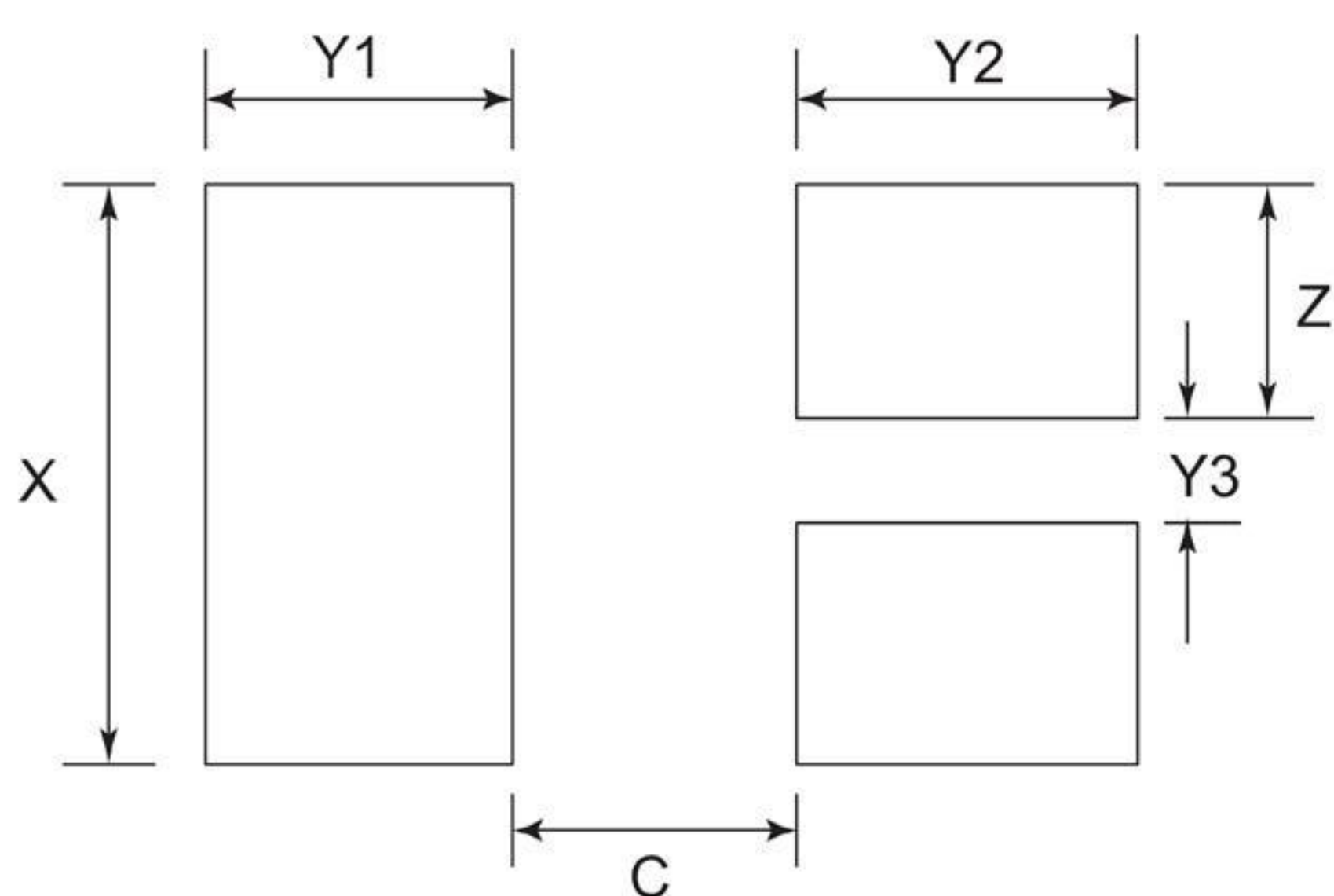
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Static Characteristics						
Collector cut-off current	I_{CBO}	$V_{CB} = 60 V$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 V$, $I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 6 V$, $I_C = 2 mA$	120		400	V
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 mA$, $I_B = 10 mA$		0.1	0.25	V
Transition frequency	f_T	$V_{CE} = 10 V$, $I_C = 1 mA$	60		1	Mhz
Collector output capacitance	C_{ob}	$V_{CB} = 10 V$, $I_E = 0$, $f = 1 MHz$		0.95		pF

DFN1006-3L Package Outline Drawing



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
b1	0.10	0.15	0.20	0.004	0.006	0.008
C	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
E1	0.15	0.20	0.25	0.006	0.008	0.010
L	0.20	0.25	0.30	0.008	0.010	0.012
L1	0.05 REF			0.0002 REF		

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
C	0.25	0.010
X	0.65	0.024
Y1	0.50	0.020
Y2	0.50	0.020
Y3	0.25	0.010
Z	0.20	0.008