

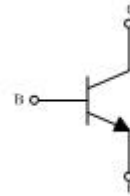
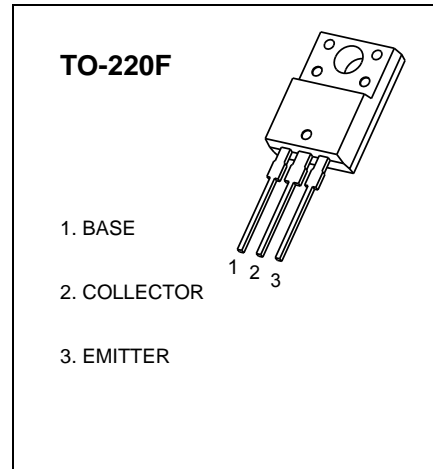
3DD13007N36F TRANSISTOR (NPN)

FEATURES

- Power switching applications

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	700	V
V _{CEO}	Collector-Emitter Voltage	400	V
V _{EBO}	Emitter-Base Voltage	9	V
I _C	Collector Current -Continuous	8	A
P _C	Collector Power Dissipation	2	W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~150	°C



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

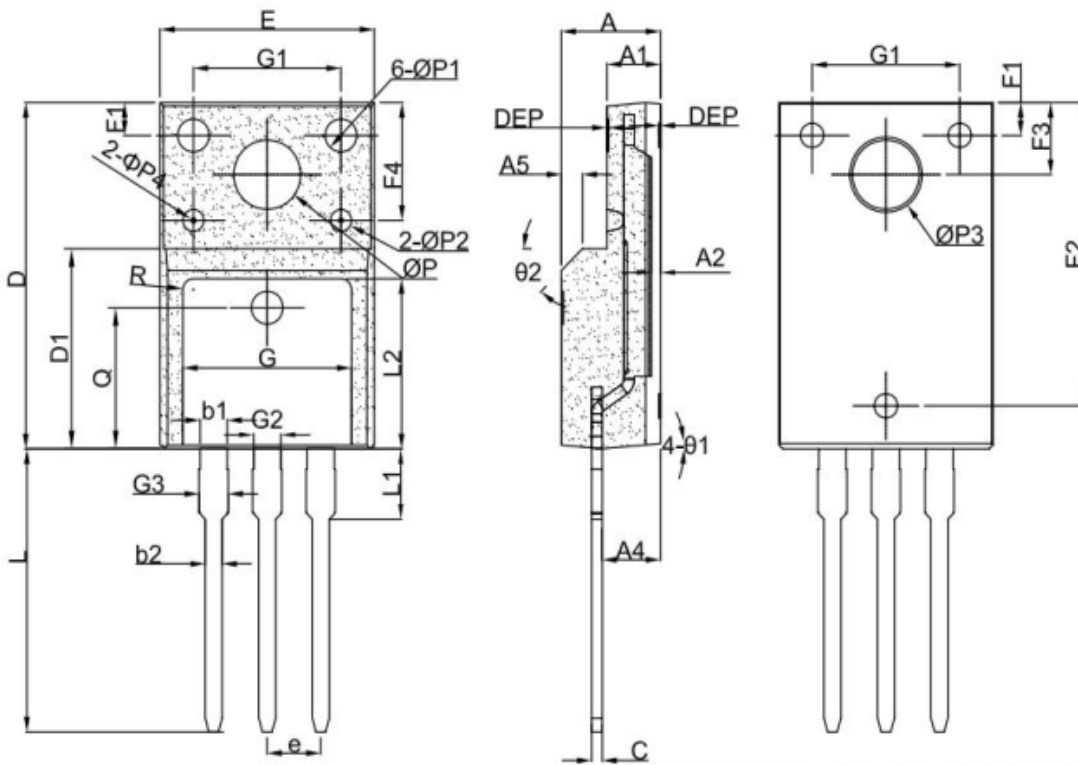
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 1mA, I _E =0	700			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =10mA, I _B =0	400			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =1mA, I _C =0	9			V
Collector cut-off current	I _{CBO}	V _{CB} =700V, I _E =0			100	μ A
Collector cut-off current	I _{CEO}	V _{CE} =400V, I _B =0			100	μ A
Emitter cut-off current	I _{EBO}	V _{EB} =9V, I _C =0			100	μ A
DC current gain	h _{FE(1)}	V _{CE} =5V, I _C =2A	10		40	
	h _{FE(2)}	V _{CE} =5V, I _C =8A	5			
Collector-emitter saturation voltage	V _{CE(sat)1}	I _C =2A, I _B =0.4A			1	V
	V _{CE(sat)2}	I _C =5A, I _B =1A			2	V
	V _{CE(sat)3}	I _C =8A, I _B =2A			3	V
Base-emitter saturation voltage	V _{BE(sat)1}	I _C =2A, I _B =0.4A			1.2	V
	V _{BE(sat)2}	I _C =5A, I _B =1A			1.6	V
Storage time	t _s	I _C =500mA (UI9600)	3		6	μ s
Fall time	t _f	I _C =500mA (UI9600)			0.5	μ s
Transition frequency	f _T	V _{CE} =10V, I _C =0.5A, f=1MHz	4			MHz

CLASSIFICATION OF h_{FE(1)}

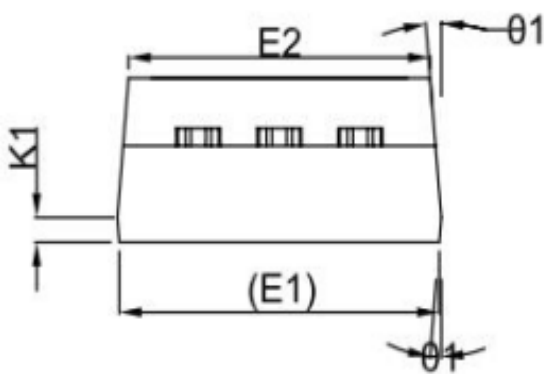
Range	10-15	15-20	20-25	25-30	30-35	35-40
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CLASSIFICATION OF t_s

Rank	A	B	C
Range	3-4 (μ s)	4-5 (μ s)	5-6 (μ s)



图中阴影为麻面Ra0.8-1.2，其他面为亮面Ra0.2-0.4



SYMBOL	mm		
	MIN	NOM	MAX
*A	4.50	4.70	4.90
*A1	2.34	2.54	2.74
*A2	0.38	0.43	0.48
*A4	2.66	2.76	2.86
A5	1.0REF		
b1	1.15	1.20	1.25
*b2	0.75	0.80	0.85
*c	0.45	0.50	0.60
*D	15.67	15.87	16.07
*D1	9.04	9.12	9.20
*e	2.49	2.54	2.59
*E	10.00	10.16	10.32
E1	9.94	10.04	10.14
E2	9.36	9.46	9.56
F1	1.40	1.50	1.60
F2	13.80	13.90	14.00
*F3	3.20	3.30	3.40
F4	5.30	5.40	5.50
G	7.80	8.00	8.20
G1	6.90	7.00	7.10
*G3	1.15	-	1.30
K1	0.65	0.70	0.75
*L	12.78	12.98	13.18
*L1	3.13	3.23	3.33
L2	7.40	7.50	7.60
Q	6.5REF		
R	0.5REF		
*ΦP	3.08	3.18	3.28
ΦP1	1.40	1.50	1.60
ΦP2	0.95	1.00	1.05
ΦP3	3.35	3.40	3.45
ΦP4	0.15	0.20	0.25
*θ1	3°	5°	7°
θ2	-	45°	-
DEP	0.05	0.1	0.15
带*为检验尺寸			