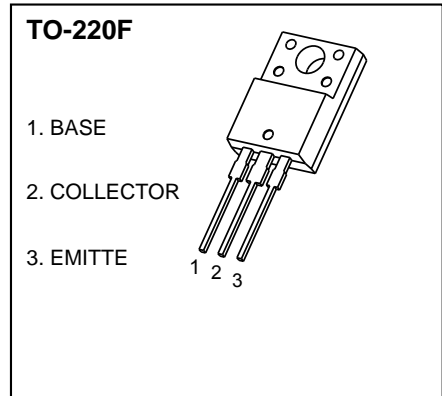


## 3DD3853 TRANSISTOR (NPN)

### FEATURES

- High Current Gain
- Saturation Voltage Low
- Power Dissipation  
 $P_{CW} : 2\text{ W (}T_a=25\text{.)}$   
 $25\text{ W (}T_c=25\text{.)}$



### MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current -Continuous	3	A
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55-150	$^\circ\text{C}$

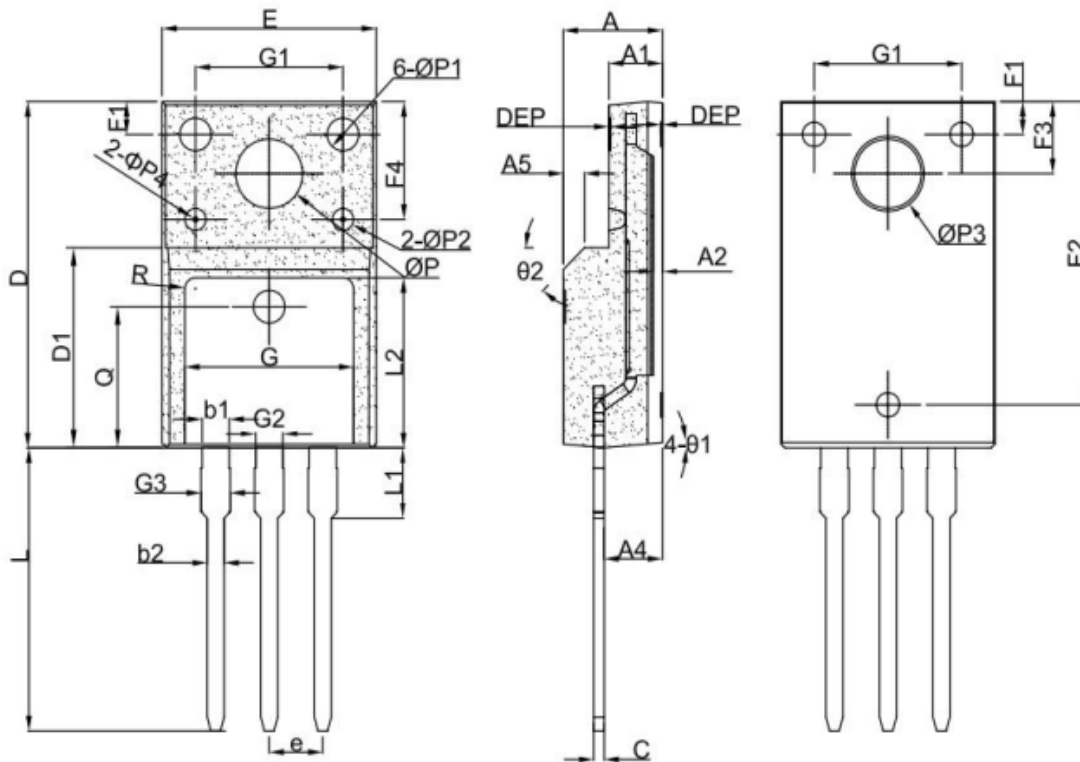
### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	7			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=60\text{V}, I_E=0$			100	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=7\text{V}, I_C=0$			100	$\mu\text{A}$
DC current gain	$h_{FE}^*$	$V_{CE}=5\text{V}, I_C=500\text{mA}$	60		300	
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=3\text{A}, I_B=300\text{mA}$			1.0	V
Transition frequency	$f_T$	$V_{CE}=5\text{V}, I_C=500\text{mA}$	5			MHz

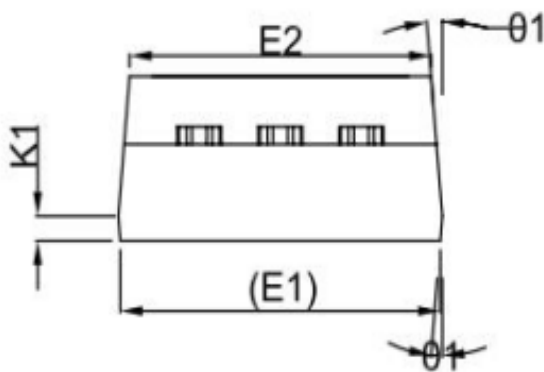
\*Pulse test:  $t_p \leq 300\mu\text{S}, \delta \leq 0.02$ .

### CLASSIFICATION OF $h_{FE}$

Rank	O	Y	GR
Range	60-120	100-200	150-300



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