3DD3853 TRANSISTOR (NPN)

TO-220F

1.BASE
2.COLLECTOR
3.EMITTER

FEATURES

- High Current Gain
- Saturation Voltage Low
- Power Dissipation

P_{CW} : 2 W (T_a=25 .)
25 W (T_c=25.)

MAXIMUM RATINGS (T_a=25℃ 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	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

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

*Pulse test: t_p≤300μS, δ≤0.02.

CLASSIFICATION OF h_{FE}

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