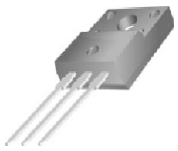
3DD3852 TRANSISTOR (NPN)

TO-220F



1. BASE
2. COLLECTOR
3. EMITTE

FEATURES

- High Current Gain
- Saturation Voltage Low
- Power dissipation

P_{CW} : 2 W (Tamb=25℃)
25 W (Tcase=25℃)

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	3	A
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=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	80			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	6			V
Collector cut-off current	I_{CBO}	V_{CB}=80V, I_E=0			10	μA
Emitter cut-off current	I_{EBO}	V_{EB}=6V, I_C=0			10	μA
DC current gain	h_{FE} *	V_{CE}=4V, I_C=500mA	100		600	
Collector-emitter saturation voltage	$V_{CE(sat)}$ *	I_C=3A, I_B=300mA			1	V
Transition frequency	f_T	V_{CE}=12V, I_C=200mA	7			MHz

*Pulse test: t_p≤300μS, δ≤0.02.

CLASSIFICATION OF h_{FE}

Rank	O	P	Q
Range	100-200	160-320	300-600

Typical Characteristics 3DD3852