



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-220F Plastic-Encapsulate Transistors

3DD3853 TRANSISTOR (NPN)

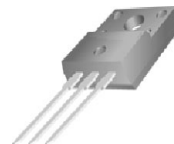
FEATURES

- High Current Gain
- Saturation Voltage Low
- Power dissipation

P_{CW} : 2 W ($T_{amb}=25^{\circ}C$)

25 W ($T_{case}=25^{\circ}C$)

TO-220F



1. BASE

2. COLLECTOR

3. EMITTE

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

Symbol	Parameter	Value	Units
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	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55-150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	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: $t_p \leq 300\mu S$, $\delta \leq 0.02$.

CLASSIFICATION OF h_{FE}

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

Typical Characteristics

3DD3853

