JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-220F Plastic-Encapsulate Transistors

2SD1761 TRANSISTOR (NPN)

TO-220F

1. BASE
2. COLLECTOR
3. EMITTER

FEATURES

- Low collector saturation voltage: $V_{ce(sat)}$=0.3V(Typ.),I_C/I_B=2A/0.2A
- Excellent current characteristics of DC current gain.
- Large collector power dissipation: P_C=30W(T_C=25℃)
- Complementary pair with 2SB1187

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	5	V
I_C	Collector Current -Continuous	3	A
p_C	Collector Power dissipation	2	W
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=50uA, I_E=0	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=50uA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=60V,I_E=0			10	uA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			10	uA
DC current gain	$h_{FE(1)}$	V_{CE}=5V,I_C=0.5A	60		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2A,I_B=0.2A			1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=2A,I_B=0.2A			1.5	V
Transition frequency	f_T	V_{CE}=5V,I_C=0.5A		8		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		90		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	D	E	F
Range	60-120	100-200	160-320

Typical Characteristics

2SD1761