



## TO-220F Plastic-Encapsulate Transistors

### 2SD2061 TRANSISTOR (NPN)

#### FEATURES

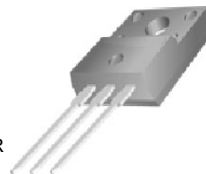
- Low saturation voltage
- Excellent DC current gain characteristic

#### MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ 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	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-55-150	$^{\circ}\text{C}$

#### TO-220F

1. BASE
2. COLLECTOR
3. EMITTER



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu\text{A}$ , $I_E=0$	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$ , $I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu\text{A}$ , $I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=60\text{V}$ , $I_E=0$			10	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4\text{V}$ , $I_C=0$			10	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=5\text{V}$ , $I_C=0.5\text{A}$	100		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2\text{A}$ , $I_B=0.2\text{A}$			1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=2\text{A}$ , $I_B=0.2\text{A}$			1.5	V
Transition frequency	$f_T$	$V_{CE}=5\text{V}$ , $I_C=0.5\text{A}$ , $f=5\text{MHz}$		8		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10\text{V}$ , $I_E=0$ , $f=1\text{MHz}$		70		pF

## Typical Characteristics

2SD2061

