



TO-220F Plastic-Encapsulate Transistors

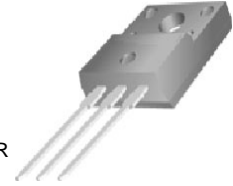
2SD2061 TRANSISTOR (NPN)

FEATURES

- Low saturation voltage
- Excellent DC current gain characteristic

TO-220F

1. BASE
2. COLLECTOR
3. EMITTER



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	$^{\circ}\text{C}$

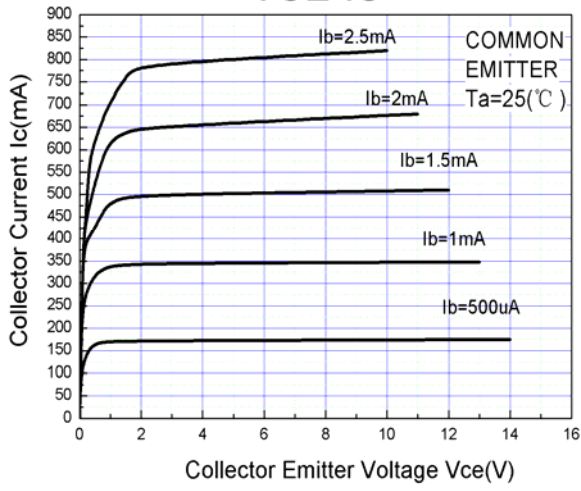
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

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	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$			10	μA
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

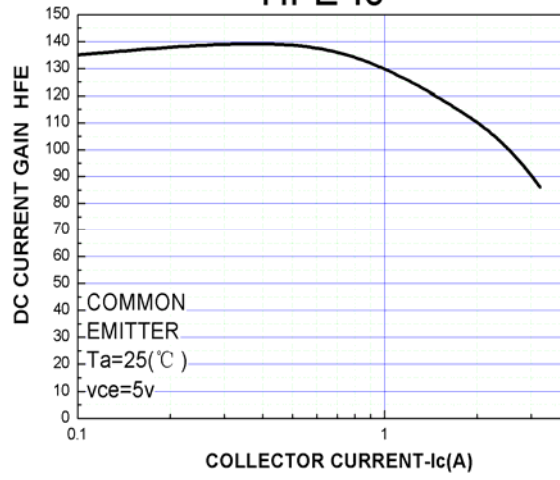
Typical Characteristics

2SD2061

VCE-IC



HFE-Ic



Pc-Ta

