



TO-220F Plastic-Encapsulate Transistors

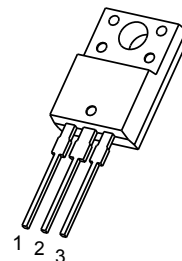
2SD2061 TRANSISTOR (NPN)

FEATURES

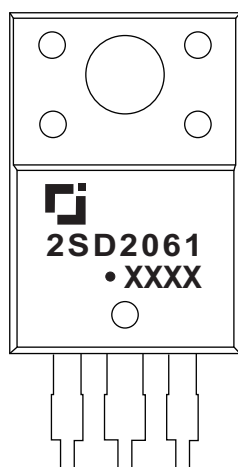
- Low Saturation Voltage
- Excellent DC Current Gain Characteristic

TO-220F

1. BASE
2. COLLECTOR
3. EMITTER

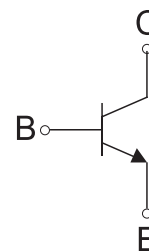


MARKING



2SD2061=Device code
Solid dot=Green moldinn compound device,
if none,the normal device
XXXX=Code

Equivalent Circuit



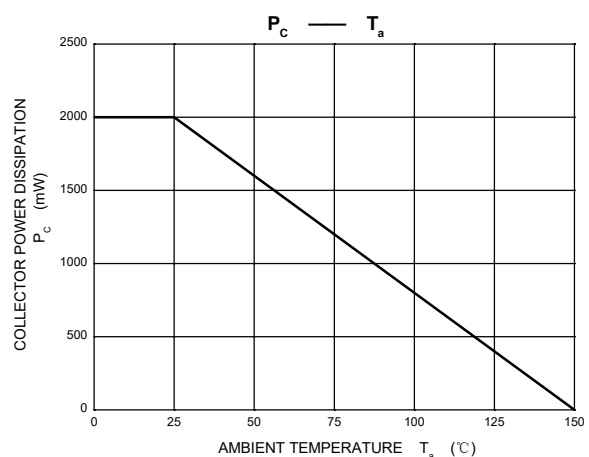
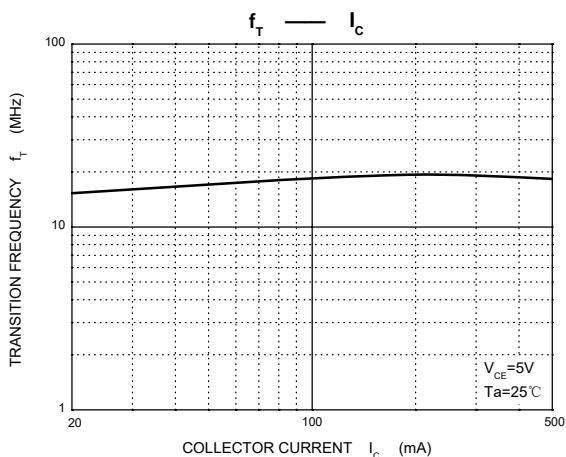
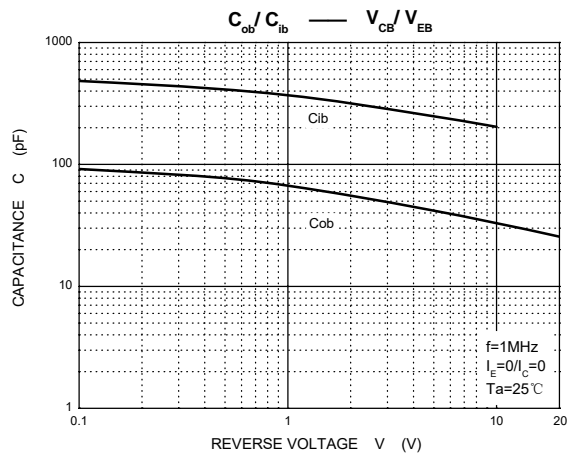
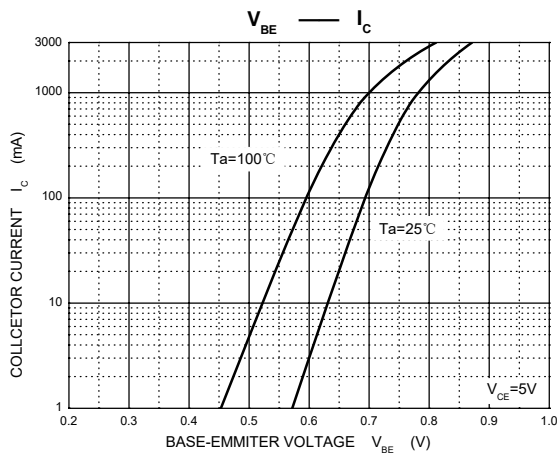
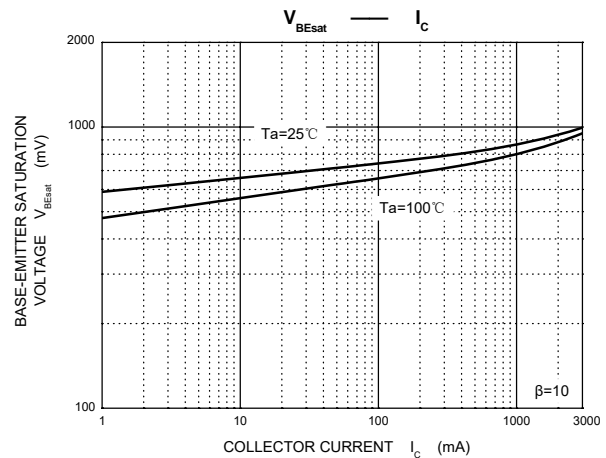
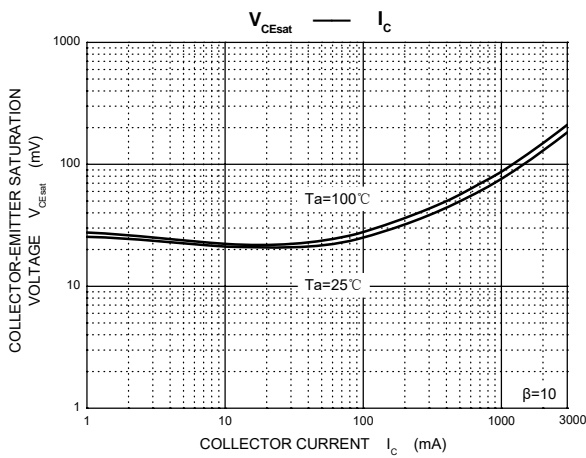
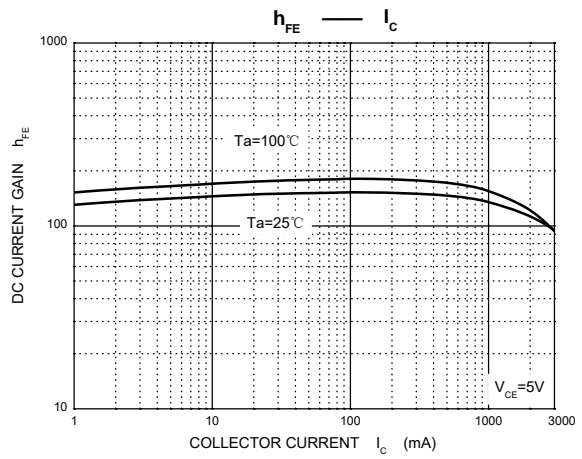
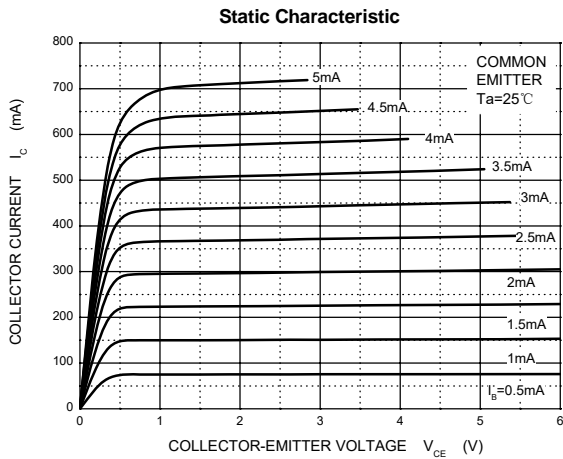
MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	80	V
V _{CE0}	Collector-Emitter Voltage	60	V
V _{EB0}	Emitter-Base Voltage	5	V
I _c	Collector Current -Continuous	3	A
P _c	Collector Power Dissipation	2	W
T _J ,T _{STG}	Operation Junction and Storage Temperature Range	-55-150	°C

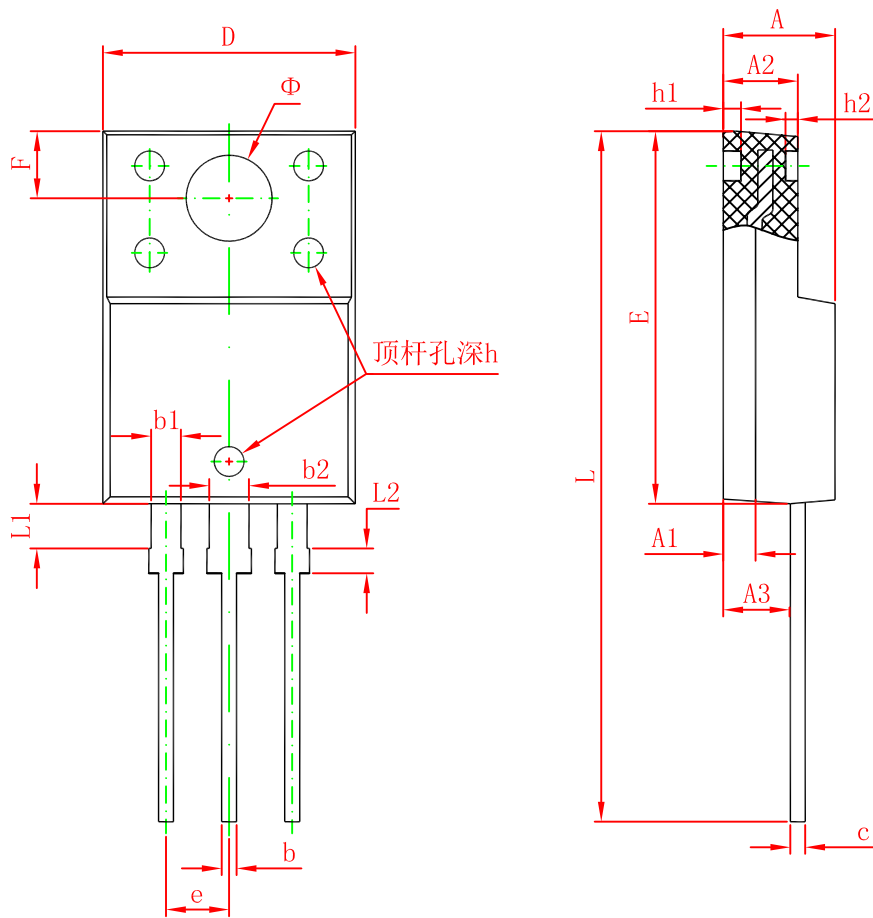
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =50μA, 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 =50μA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0			10	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			10	μA
DC current gain	h _{FE}	V _{CE} =5V, I _C =0.5A	100		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, f=5MHz		8		MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		70		pF

Typical Characteristics



TO-220F Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.300	4.700	0.169	0.185
A1	1.300 REF.		0.051 REF.	
A2	2.800	3.200	0.110	0.126
A3	2.500	2.900	0.098	0.114
b	0.500	0.750	0.020	0.030
b1	1.100	1.350	0.043	0.053
b2	1.500	1.750	0.059	0.069
c	0.500	0.750	0.020	0.030
D	9.960	10.360	0.392	0.408
E	14.800	15.200	0.583	0.598
e	2.540 TYP.		0.100 TYP.	
F	2.700 REF.		0.106 REF.	
Φ	3.500 REF.		0.138 REF.	
h	0.000	0.300	0.000	0.012
h1	0.800 REF.		0.031 REF.	
h2	0.500 REF.		0.020 REF.	
L	28.000	28.400	1.102	1.118
L1	1.700	1.900	0.067	0.075
L2	0.900	1.100	0.035	0.043