Power Transistor (60V, 3A)

2SD2061

●Features

1) Low saturation voltage, typically $V_{CE(sat)}$ =0.3V at Ic / IB=2A / 0.2A.
2) Excellent DC current gain characteristics.
3) PC=30W. (Tc=25℃)
4) Wide SOA (safe operating area).

●Packaging specifications and hFE

Type	2SD2061
Package	TO-220FP
hFE	EF
Code	—
Basic ordering unit (pieces)	500

●Absolute maximum ratings (Ta=25℃)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	60	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	3	A (DC)
		6	A (Pulse) ✻
Collector power dissipation	P_C	2	W
		30	W (Tc=25℃)
Junction temperature	Tj	150	℃
Storage temperature	Tstg	−55~+150	℃

✻ Single pulse Pw=100ms

●Electrical characteristics (Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	80	—	—	V	I_C=50 μA
Collector-emitter breakdown voltage	BV_{CEO}	60	—	—	V	I_C=1mA
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	I_E=50 μA
Collector cutoff current	I_{CBO}	—	—	10	μA	V_{CB}=60V
Emitter cutoff current	I_{EBO}	—	—	10	μA	V_{EB}=4V
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	1		I_C/I_B=2A/0.2A ✻
Base-emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5		I_C/I_B=2A/0.2A ✻
DC current transfer ratio	hFE	100	—	320	—	V_{CE}/I_C=5V/0.5A
Transition frequency	fT	—	8	—		V_{CE}=5V, I_E=−0.5A, f=5MHz ✻
Output capacitance	Cob	—	70	—	pF	V_{CB}=10V, I_E=0A, f=1MHz

✻ Measured using pulse current.