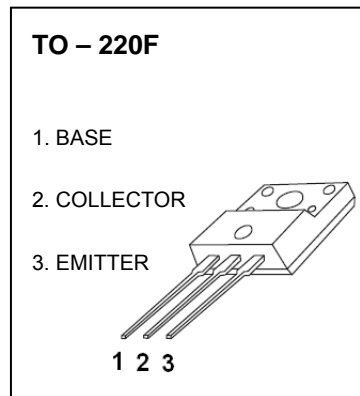


TO-220F Plastic-Encapsulate Transistors

2SD2012 TRANSISTOR (NPN)

FEATURES

- Audio frequency power amplifier applications
- High DC current gain
- Low saturation voltage
- High power dissipation



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

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	60	V
V _{CEO}	Collector-Emitter Voltage	60	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current -Continuous	3	A
P _C	Collector power dissipation	2	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =50mA, I _B =0 ¹⁾	60			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	7			V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0			100	μA
Emitter cut-off current	I _{EBO}	V _{EB} =7V, I _C =0			100	μA
DC current gain	h _{FE1}	V _{CE} =5V, I _C =0.5A	100		320	
	h _{FE2}	V _{CE} =5V, I _C =2A	20			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =2A, I _B =0.2A			1	V
Base-emitter voltage	V _{BE}	V _{CE} =5V, I _C =0.5A			1	V
Transition frequency	f _T	V _{CE} =5V, I _C =0.5A		3		MHz
collector capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		35		pF

Static Characteristic

