

TO-3P Plastic-Encapsulate Transistors

2SB688 TRANSISTOR (PNP)

FEATURES

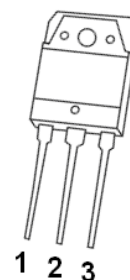
- High Breakdown Voltage
- Complement to Type 2SD718

APPLICATIONS

- Power Amplifier Applications

TO – 3P

1. BASE
2. COLLECTOR
3. EMITTER



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

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-120	V
V _{CEO}	Collector-Emitter Voltage	-120	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-8	A
P _C	Collector Power Dissipation	3	W
R _{θJA}	Thermal Resistance From Junction To Ambient	42	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-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 =-100μA, I _E =0	-120			V
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _C =-50mA, I _B =0	-120			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-100μA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-120V, I _E =0			-10	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0			-10	μA
DC current gain	h _{FE} *	V _{CE} =-5V, I _C =-1A	55		160	
Collector-emitter saturation voltage	V _{CE(sat)} *	I _C =-5A, I _B =-500mA			-2.5	V
Base-emitter voltage	V _{BE} *	V _{CE} =-5V, I _C =-5A			-1.5	V
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		280		pF
Transition frequency	f _T	V _{CE} =-5V, I _C =-1A, f=1MHz		10		MHz

*Pulse test

CLASSIFICATION OF h_{FE}

RANK	R	O
RANGE	55-110	80-160