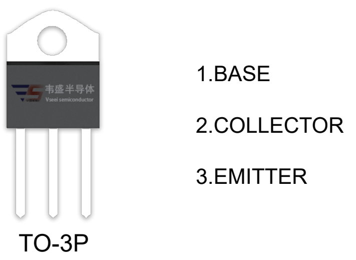

2SB688 TRANSISTOR (PNP)

FEATURES

- High Breakdown Voltage
- Complement to Type 2SD718

APPLICATIONS

- Power Amplifier Applications

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	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
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	42	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ 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