

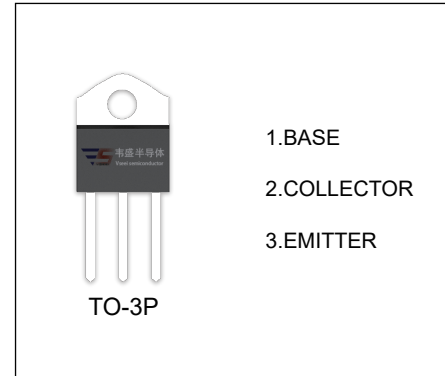
2SD718 TRANSISTOR (NPN)

FEATURES

- High Breakdown Voltage
- Complementary to 2SB688

APPLICATIONS

- Power Amplifier Applications



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ 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	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, I_B=0$	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=120\text{V}, I_E=0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			10	μA
DC current gain	h_{FE}^*	$V_{CE}=5\text{V}, I_C=1\text{A}$	55		160	
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=5\text{A}, I_B=500\text{mA}$			2.5	V
Base-emitter voltage	V_{BE}^*	$V_{CE}=5\text{V}, I_C=5\text{A}$			1.5	V
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		280		pF
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=1\text{A}, f=1\text{MHz}$		10		MHz

*Pulse test

CLASSIFICATION OF h_{FE}

RANK	R	O
RANGE	55-110	80-160