

SPTECH Silicon PNP Power Transistor**2SB1186****DESCRIPTION**

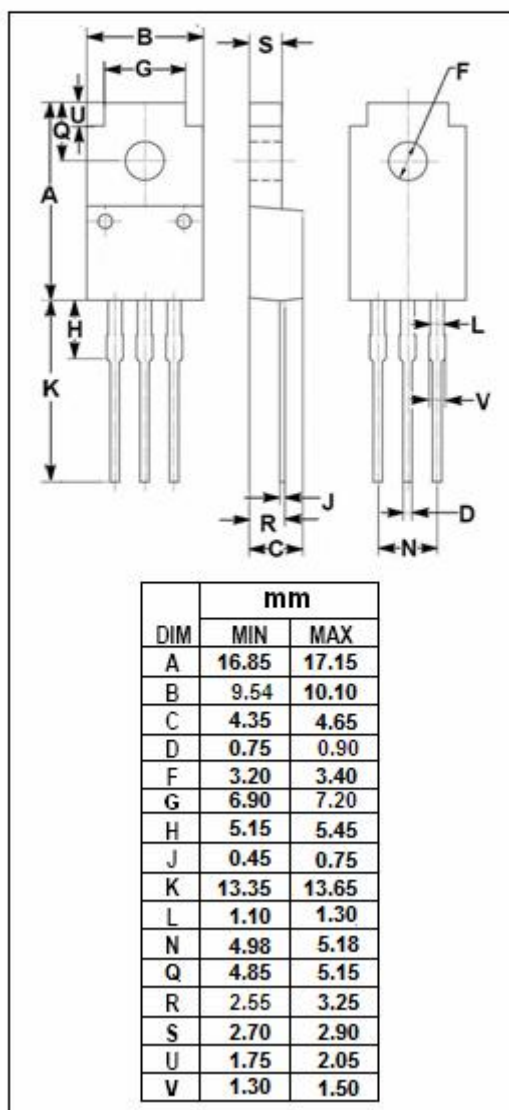
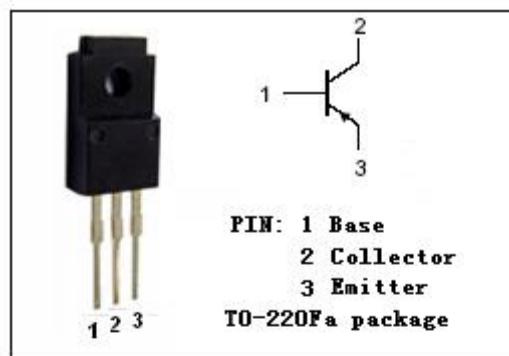
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -120V(\text{Min.})$
- Good Linearity of h_{FE}
- Complement to Type 2SD1763

APPLICATIONS

- Power amplifier applications.
- Driver stage amplifier applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

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-Continuous	-1.5	A
I_{CM}	Collector Current-Peak	-3	A
P_C	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	20	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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2SB1186

ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -1\text{mA}; I_B = 0$	-120			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -50\text{ }\mu\text{A}; I_E = 0$	-120			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -50\text{ }\mu\text{A}; I_C = 0$	-5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1\text{A}; I_B = -0.1\text{A}$			-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -1\text{A}; I_B = -0.1\text{A}$			-1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -100\text{V}; I_E = 0$			-1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -4\text{V}; I_C = 0$			-1	μA
h_{FE}	DC Current Gain	$I_C = -0.1\text{A}; V_{CE} = -5\text{V}$	100		320	
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f_{test} = 1\text{MHz}$		30		pF
f_T	Current-Gain—Bandwidth Product	$I_E = 0.1\text{A}; V_{CE} = -5\text{V}; f_{test} = 30\text{MHz}$		50		MHz

◆ h_{FE} Classifications

E	F
100-200	160-320