

**isc Silicon PNP Power Transistor**
**2SB1163**
**DESCRIPTION**

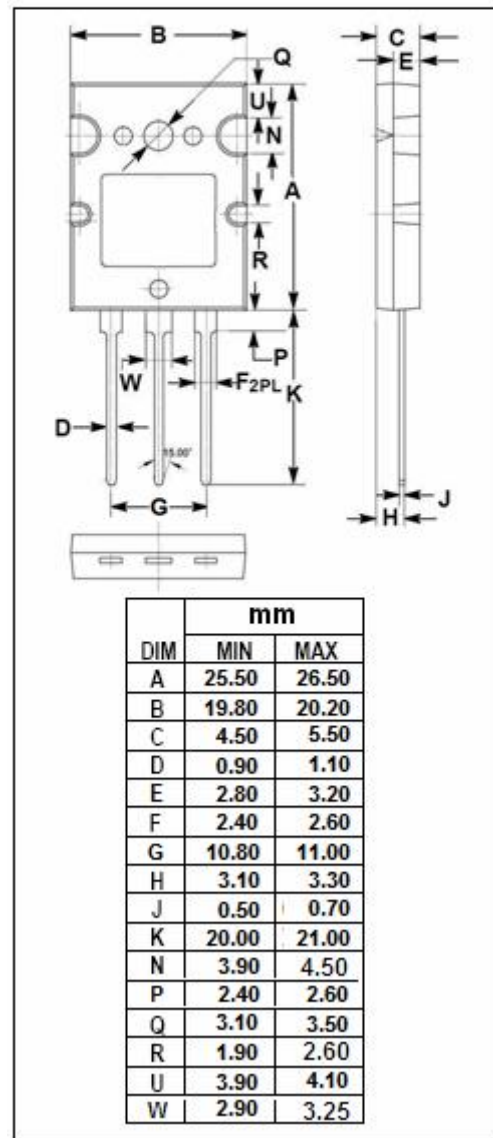
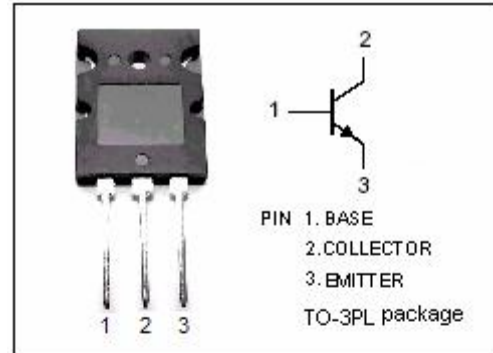
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -180V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Wide Area of Safe Operation
- Complement to Type 2SD1718
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for high power amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-180	V
$V_{CEO}$	Collector-Emitter Voltage	-180	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-15	A
$I_{CP}$	Collector Current-Pulse	-25	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	150	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	3.5	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon PNP Power Transistor****2SB1163****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -10\text{A}; I_B = -1\text{A}$			-2.5	V
$V_{BE(on)}$	Base -Emitter On Voltage	$I_C = -8\text{A}; V_{CE} = -5\text{V}$			-1.8	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -180\text{V}; I_E = 0$			-50	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -3\text{V}; I_C = 0$			-50	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C = -20\text{mA}; V_{CE} = -5\text{V}$	20			
$h_{FE-2}$	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -5\text{V}$	60		200	
$h_{FE-3}$	DC Current Gain	$I_C = -8\text{A}; V_{CE} = -5\text{V}$	20			
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f_{test} = 1.0\text{MHz}$		230		pF
$f_T$	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}; V_{CE} = -5\text{V}$		20		MHz

◆  **$h_{FE-2}$  Classifications**

Q	S	P
60-120	80-160	100-200

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