

**isc Silicon PNP Power Transistor**
**2SB686**
**DESCRIPTION**

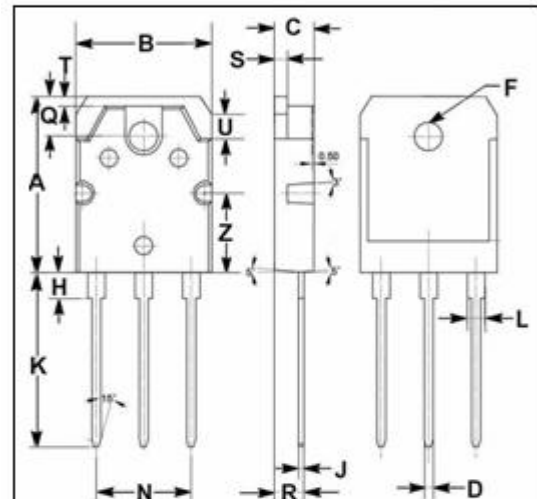
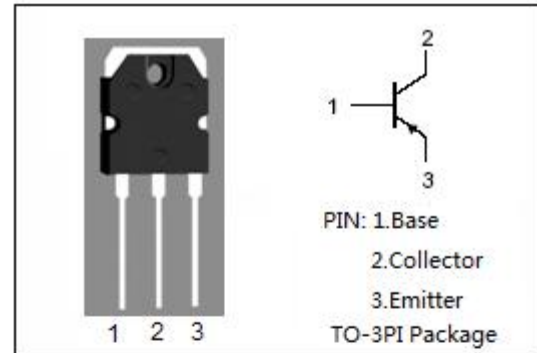
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -100V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Complement to Type 2SD716
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Power amplifier applications
- Recommend for 30~35W high-fidelity audio frequency amplifier output stage.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-100	V
$V_{CEO}$	Collector-Emitter Voltage	-100	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-6	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	60	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



DIM	mm	
	MIN	MAX
A	19.60	20.10
B	15.30	15.70
C	4.00	4.60
D	0.90	1.10
F	3.20	3.40
H	2.90	3.10
J	0.50	0.70
K	19.90	21.30
L	1.20	2.20
N	10.80	11.00
Q	4.40	4.60
R	3.30	3.35
S	1.40	1.60
T	1.00	1.20
U	2.10	2.30
Z	7.90	9.10

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**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	$I_C = -50\text{mA}; I_B = 0$	-100			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -10\text{mA}; I_C = 0$	-5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -4\text{A}; I_B = -0.4\text{A}$			-2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -4\text{A}; V_{CE} = -5\text{V}$			-1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -100\text{V}; I_E = 0$			-10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-10	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -5\text{V}$	55		160	

**◆  $h_{FE}$  Classifications**

R	O
55-110	80-160

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