

**DESCRIPTION**

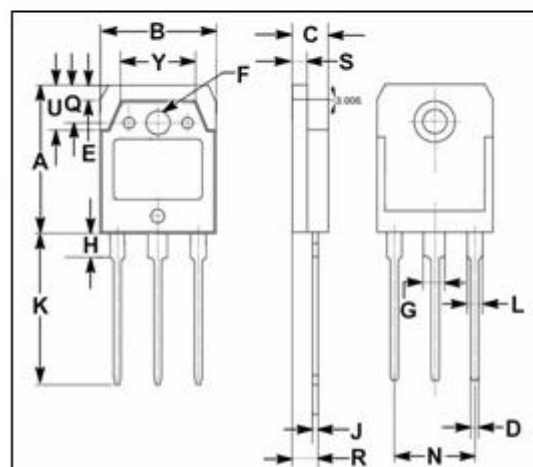
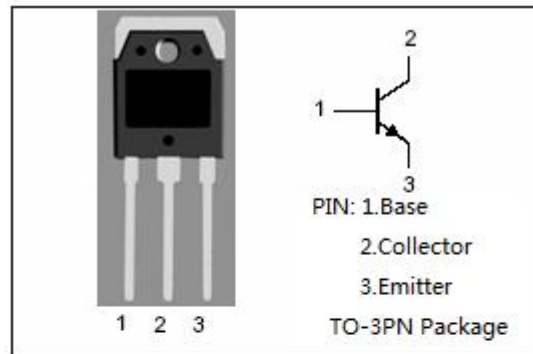
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 120V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Complement to Type 2SB688

**APPLICATIONS**

- Audio frequency power amplifier applications
- Recommend for 45-50W audio frequency amplifier output stage 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	8	A
$I_B$	Base Current-Continuous	0.8	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	80	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	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

**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	$I_C= 10\text{mA}; I_B= 0$	120			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 5.0\text{A}; I_B= 0.5\text{A}$			2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C= 5\text{A}; V_{CE}= 5\text{V}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 120\text{V}; I_E= 0$			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	
$C_{OB}$	Output Capacitance	$I_E= 0; V_{CB}= 10\text{V}; f_{test}= 1.0\text{MHz}$		170		pF
$f_T$	Current-Gain—Bandwidth Product	$I_C= 1\text{A}; V_{CE}= 5\text{V}; f_{test}= 1.0\text{MHz}$		12		MHz

◆  **$h_{FE}$  Classifications**

R	O
55-110	80-160

