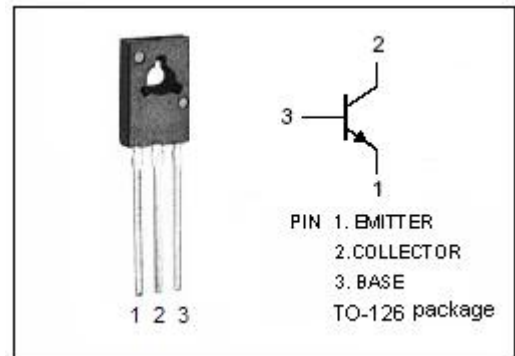


isc Silicon NPN Power Transistors
2N5655
DESCRIPTION

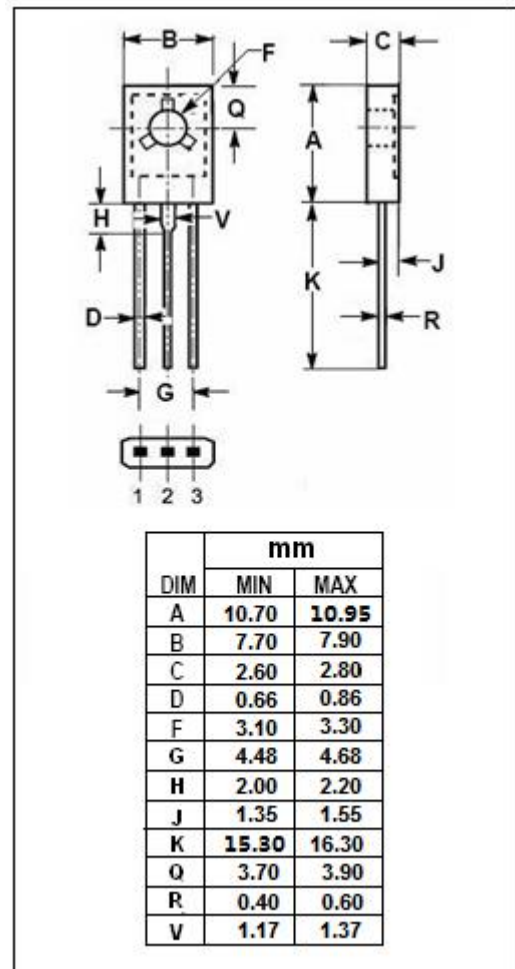
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 250V(\text{Min})$
- DC Current Gain-
: $h_{FE} = 30-250@I_C = 0.1A$
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in line-operated equipment such as audio output amplifiers; low-current, high-voltage converters; and AC line relays.


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	275	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	0.5	A
I_{CM}	Collector Current-Peak	1	A
I_B	Base Current	1	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	20	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$


THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	6.25	$^\circ\text{C/W}$

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2N5655

ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 100mA ; L= 50mH	250			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 1mA ; I _B = 0	250			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 0.1A; I _B = 10mA			1.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 0.25 A; I _B = 25mA			2.5	V
V _{CE(sat)-3}	Collector-Emitter Saturation Voltage	I _C = 0.5 A; I _B = 0.1A			10	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 0.1A ; V _{CE} = 10V			1.0	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 150V; I _B = 0			0.1	mA
I _{CEX}	Collector Cutoff Current	V _{CE} =250V;V _{BE(off)} =1.5V V _{CE} =150V;V _{BE(off)} =1.5V,T _C =100°C			0.1 1.0	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 275V; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0			10	μ A
h _{FE-1}	DC Current Gain	I _C = 50mA ; V _{CE} = 10V	25			
h _{FE-2}	DC Current Gain	I _C = 0.1A ; V _{CE} = 10V	30		250	
h _{FE-3}	DC Current Gain	I _C = 0.25A ; V _{CE} = 10V	15			
h _{FE-4}	DC Current Gain	I _C = 0.5A ; V _{CE} = 10V	5			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 100kHz			25	pF
f _T	Current-Gain—Bandwidth Product	I _C = 50mA; V _{CE} = 10V; f= 10MHz	10			MHz

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