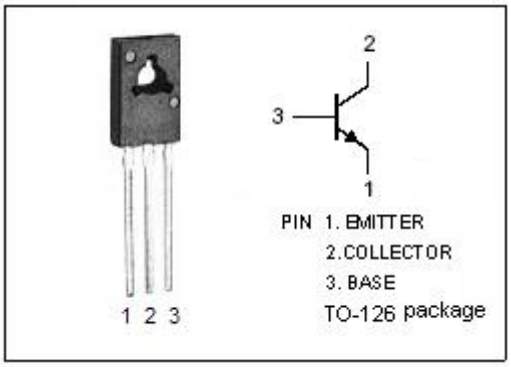
isc Silicon NPN Power Transistors — 2N5656

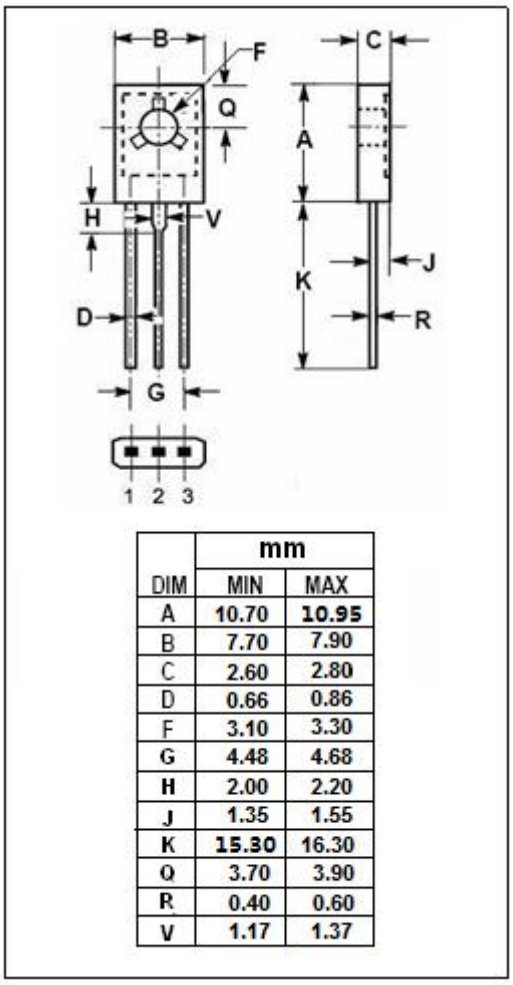
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 300V(Min)
- Low Saturation Voltage
- 100% avalanche tested
- 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.



DIM	mm MIN	MAX
A	10.70	10.95
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.10	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	15.30	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	0.5	A
I_{CM}	Collector Current-Peak	1	A
P_C	Collector Power Dissipation @ T_C=25℃	20	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$*	Collector-Emitter Sustaining Voltage	I_C= 100mA ; L= 50mH	300			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA ; I_B= 0	300			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℃			0.1 1.0	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 275V; I_E= 0			10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0			10	μA
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

*:Pulse test:Pulse width=300us,duty cycle≤2%

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