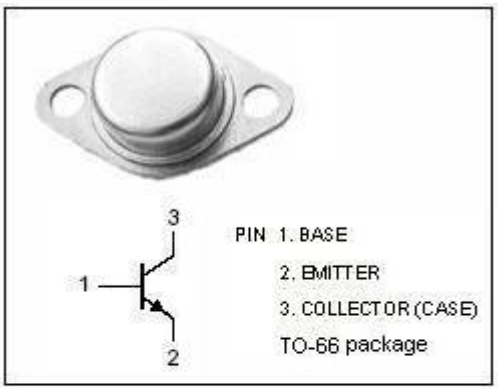
isc Silicon NPN Power Transistor AD161

DESCRIPTION

- Wide Area of Safe Operation
- DC Current Gain-
  : h_{FE}=50-350@I_C= 0.5A
- Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 0.7V(Max)@ I_C= 3A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

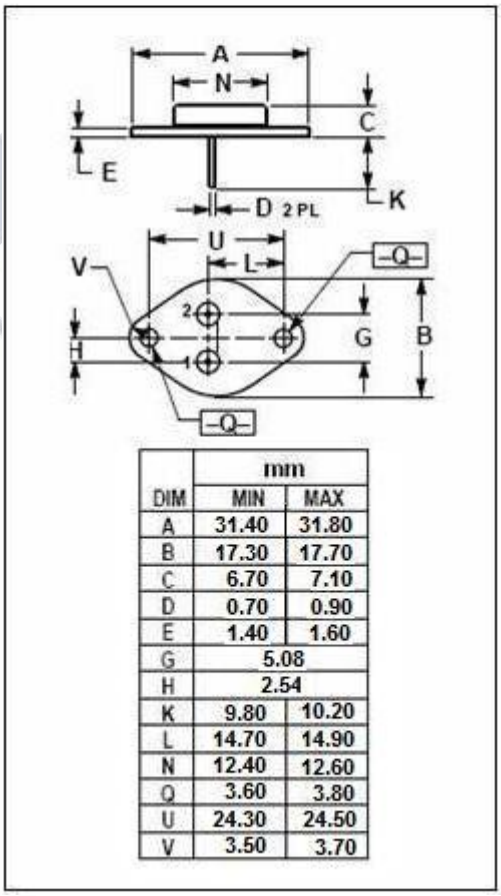
- Designed for general-purpose power switch and amplifier, consumer and industrial applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	32	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	3	A
P_C	Collector Power Dissipation @T_C=25℃	4	W
T_J	Junction Temperature	90	℃
T_{stg}	Storage Temperature	-55~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.52	℃/W



DIM	mm MIN	MAX
A	31.40	31.80
B	17.30	17.70
C	6.70	7.10
D	0.70	0.90
E	1.40	1.60
G	5.08	
H	2.54	
K	9.80	10.20
L	14.70	14.90
N	12.40	12.60
Q	3.60	3.80
U	24.30	24.50
V	3.50	3.70

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ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 100mA ; I_B= 0	50		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA ; I_E= 0	50		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA ; I_C= 0	6		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 0.3A		0.7	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 3A; I_B= 0.3A		1.2	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 50V; I_B= 0		0.1	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 32V; I_E= 0		0.5	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7.0V; I_C=0		10	μA
h_{FE}	DC Current Gain	I_C= 0.5A ; V_{CE}= 1V	50	350	