

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

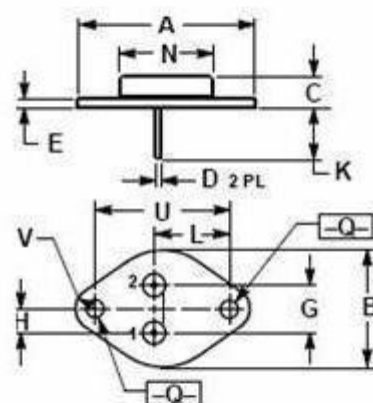
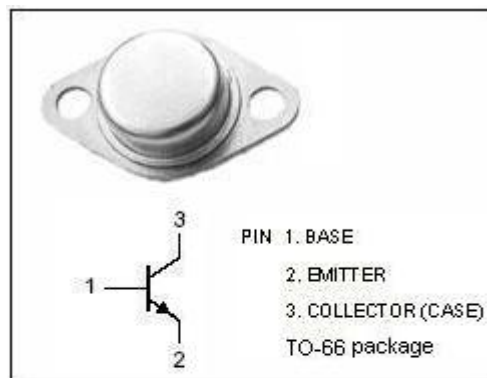
- Designed for general-purpose power switch and amplifier, consumer and industrial applications.

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

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 @ $T_C=25^{\circ}C$	4	W
T_J	Junction Temperature	90	$^{\circ}C$
T_{stg}	Storage Temperature	-55~200	$^{\circ}C$

THERMAL CHARACTERISTICS

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



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

isc Silicon NPN Power Transistor**AD161****ELECTRICAL CHARACTERISTICS****T_j=25°C 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	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7.0V; I _C =0		10	μ A
h _{FE}	DC Current Gain	I _C = 0.5A ; V _{CE} = 1V	50	350	

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