

isc Silicon NPN Power Transistor

BDY61

DESCRIPTION

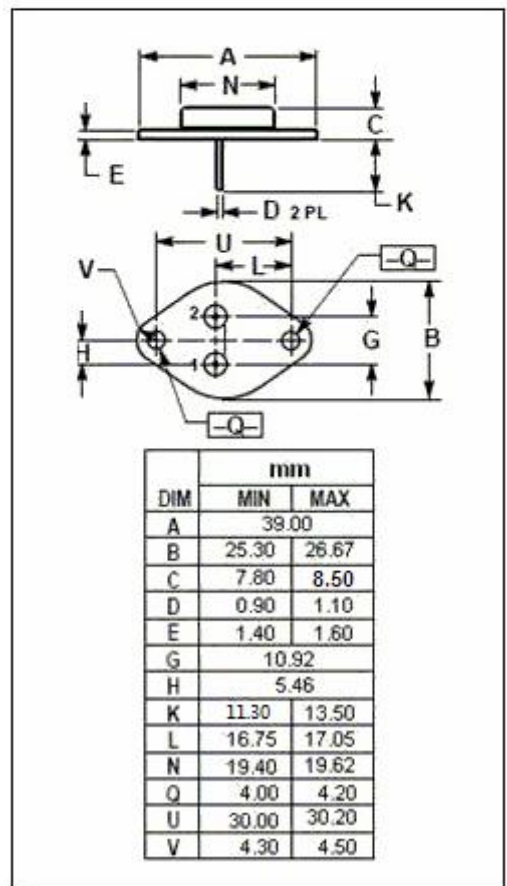
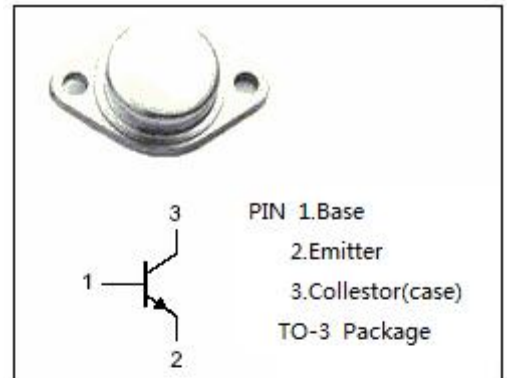
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V$ (Min)
- Low Collector-Emitter Saturation Voltage
- Excellent Safe Operating Area
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	8	A
I_B	Base Current-Continuous	3	A
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	50	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-65~150	$^\circ C$



isc Silicon NPN Power Transistor**BDY61****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA ; I _B = 0	60			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA ; I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4A ; I _B = 0.4A			2.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 1A ; V _{CE} = 5V			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 100V ; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V ; I _C = 0			100	μ A
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 2V	40		300	
h _{FE-2}	DC Current Gain	I _C = 4A ; V _{CE} = 2V	20			
f _T	Current-Gain—Bandwidth Product	I _C = 1A ; V _{CE} = 5V	30			MHz

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