

isc Silicon NPN Power Transistor
BDY29
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 75V$ (Min)
- Low Collector-Emitter Saturation Voltage
- Excellent Safe Operating Area
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

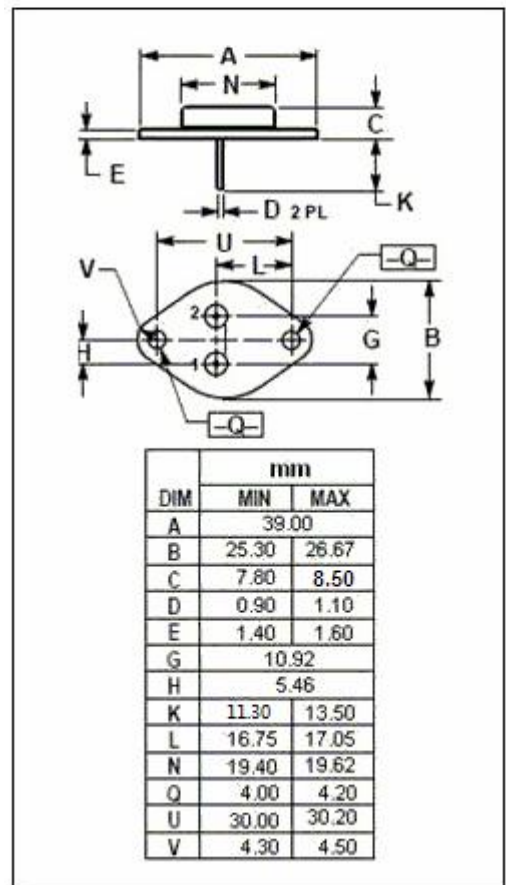
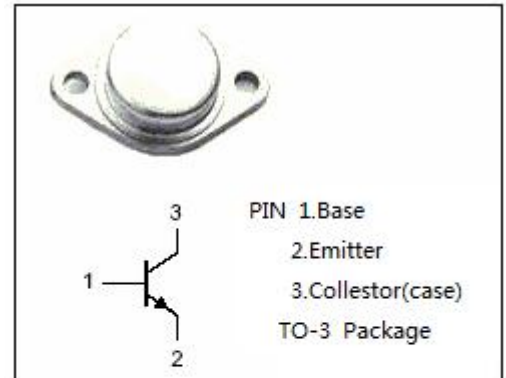
- Designed for use in high power ,high current and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	75	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	30	A
I_B	Base Current	7.5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	220	W
T_J	Junction Temperature	200	$^\circ C$
T_{stg}	Storage Temperature Range	-65~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.8	$^\circ C/W$



ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA; I _B = 0	75		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 15A; I _B = 1.5A		1.2	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 30A ; V _{CE} = 4V		3.5	V
I _{CEX}	Collector Cutoff Current	V _{CE} = 100V; V _{BE} = -1.5V V _{CE} = 100V; V _{BE} = -1.5V; T _C =150°C		1.0 10	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 75V; I _B = 0		2.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0		1.0	mA
h _{FE}	DC Current Gain	I _C = 15A ; V _{CE} = 2V	15	60	
I _{s/b}	Second Breakdown Collector Current with Base Forward Biased	V _{CE} = 60V, t= 1.0s, Nonrepetitive	3.66		A
f _T	Current-Gain—Bandwidth Product	I _C = 1A ; V _{CE} = 4V	4		MHz

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