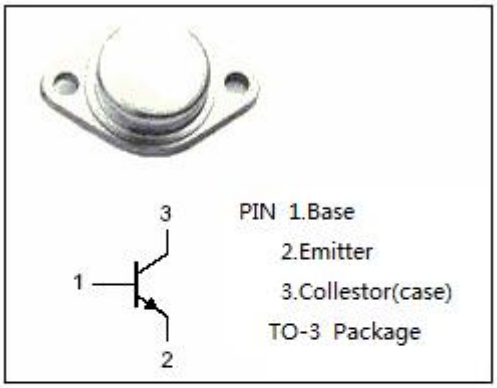
isc Silicon NPN Power Transistor BDY29

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

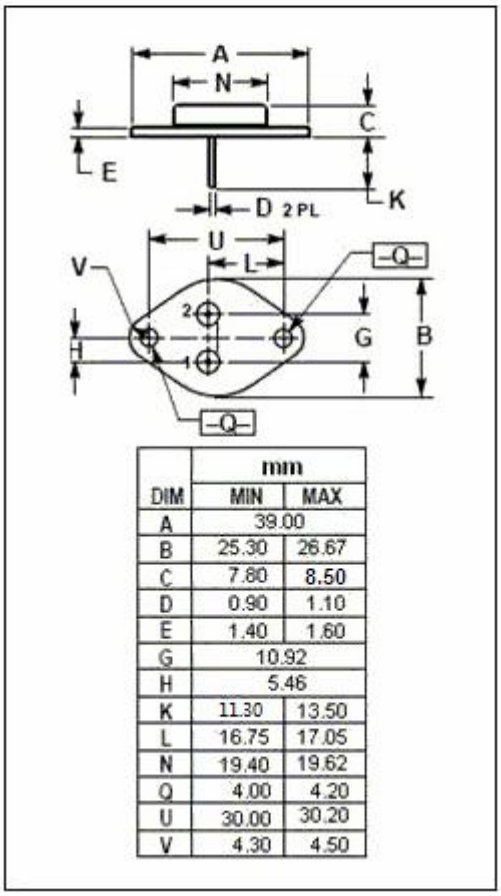
- Designed for use in high power ,high current and switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃	220	W
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature Range	-65~200	℃

THERMAL CHARACTERISTICS

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



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

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ELECTRICAL CHARACTERISTICS

T_C=25℃ 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℃		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