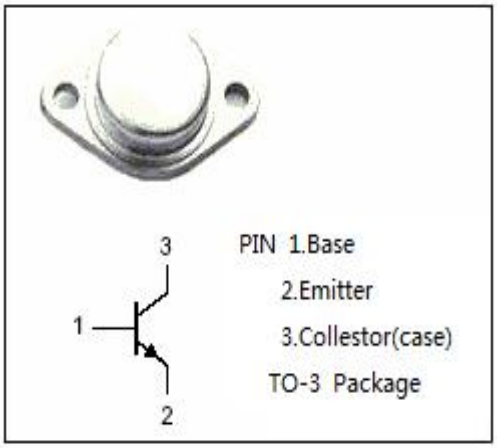
isc Silicon NPN Power Transistor — BU546

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$ = 550V(Min.)
- High Speed Switching
- High Power Dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

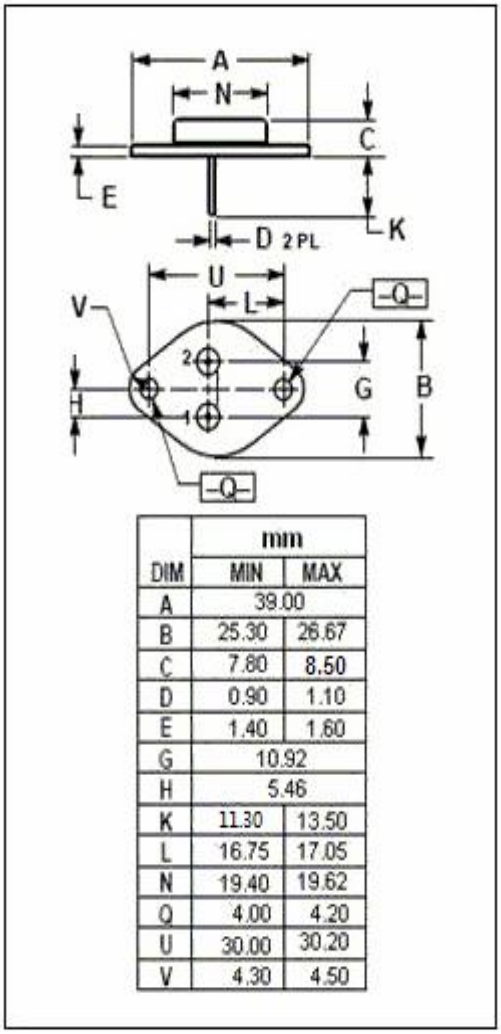


APPLICATIONS

- Designed for use in switching mode power supply.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	1300	V
V_{CEO}	Collector-Emitter Voltage	550	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	6	A
I_{CM}	Collector Current-Peak	8	A
I_B	Base Current-Continuous	2	A
P_C	Collector Power Dissipation @ T_C=25℃	100	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.25	℃/W

isc Silicon NPN Power Transistor — BU546

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 50mA; I_B=0	550			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= 6A; I_B= 2A			1.8	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 6A; I_B= 2A			2.0	V
I_{CES}	Collector Cutoff Current	V_{CE}= 1300V; V_{BE}= 0; V_{CE}= 1200V; V_{BE}= 0; T_C= 150℃			1.0 2.0	mA
h_{FE-1}	DC Current Gain	I_C= 3.2A; V_{CE}= 2V	6			
h_{FE-2}	DC Current Gain	I_C= 1.5A; V_{CE}= 5V	8			
h_{FE-3}	DC Current Gain	I_C= 10mA; V_{CE}= 5V	6			
h_{FE-4}	DC Current Gain	I_C= 4A; V_{CE}= 3V	5.5			
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A; V_{CE}= 10V		10		MHz
t_f	Fall Time	I_C= 3.2A; I_B= 0.7A			0.5	μs