

INCHANGE Semiconductor

isc Product Specification

isc Silicon NPN Darlington Power Transistor

BU180A

DESCRIPTION

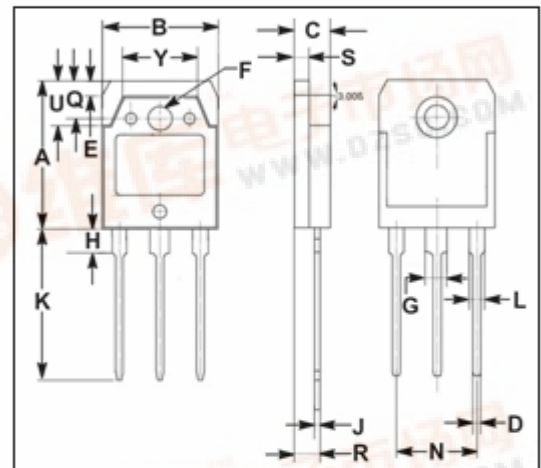
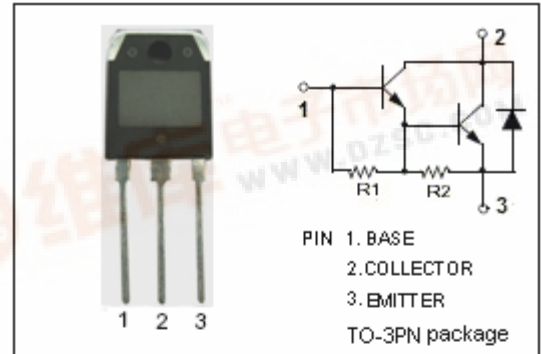
- Collector Current $-I_C = 10A$
- DC Current Gain-
: $h_{FE} = 200(\text{Min}) @ I_C = 5A$
- Low Collector Saturation Voltage

APPLICATIONS

- Designed for line operated switchmode applications such as:
- Switching regulators
- Inverters
- Solenoid and relay drivers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	10	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	50	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



DIM	mm	
	MIN	MAX
A	19.90	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.10
H	3.20	3.40
J	0.595	0.605
K	20.50	20.70
L	1.90	2.10
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.005
U	5.90	6.10
Y	9.90	10.10



isc Silicon NPN Darlington Power Transistor**BU180A****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}; I_B=0$	200			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=20\text{mA}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=20\text{mA}$			2.0	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=200\text{V}; I_B=0$			1.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}=400\text{V}; I_E=0$			1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=8\text{V}; I_C=0$			10	mA
h_{FE}	DC Current Gain	$I_C=5\text{A}; V_{CE}=5\text{V}$	200			