

isc Silicon NPN Darlington Power Transistor

BUX37

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V$ (Min)

APPLICATIONS

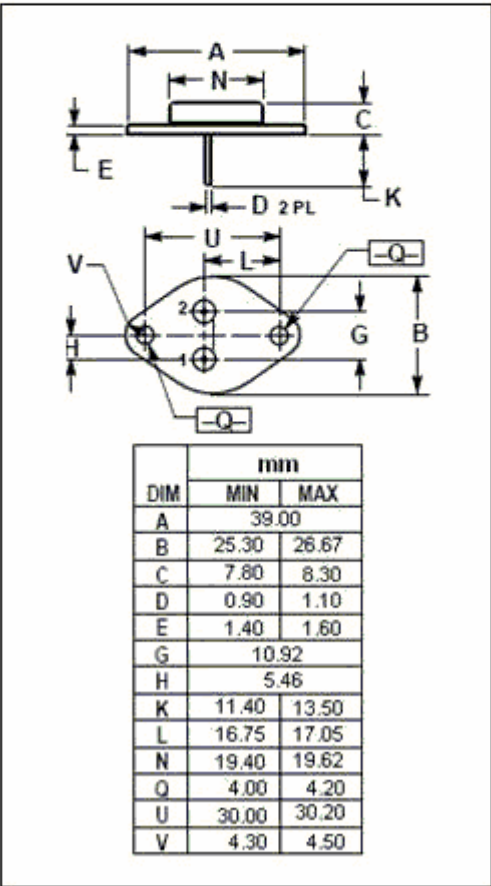
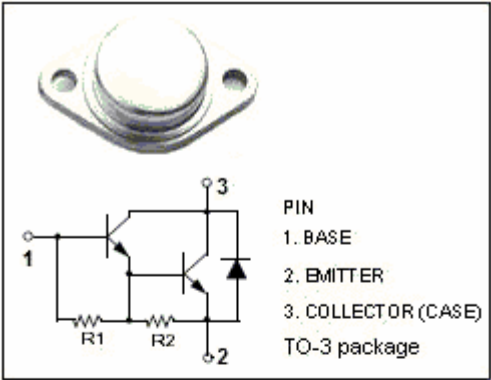
- Power switching
- Solenoid drivers
- Automotive ignition
- Series and shunt regulators

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	15	A
I_B	Base Current	4	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	35	W
T_j	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.5	$^{\circ}C/W$



isc Silicon NPN Darlington Power Transistor**BUX37****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 5A; I _B = 0; L= 1.5mH	400			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 50mA; I _C = 0	7			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 7A; I _B = 70mA			1.5	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 150mA			2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 10A; I _B = 150mA			2.7	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 400V; I _B = 0			0.25	mA
h _{FE}	DC Current Gain	I _C = 15A; V _{CE} = 5V	20			