

INCHANGE Semiconductor

isc Product Specification

isc Silicon NPN Darlington Power Transistor

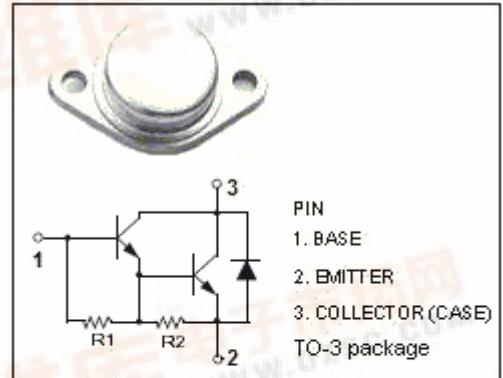
BUX37

DESCRIPTION

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

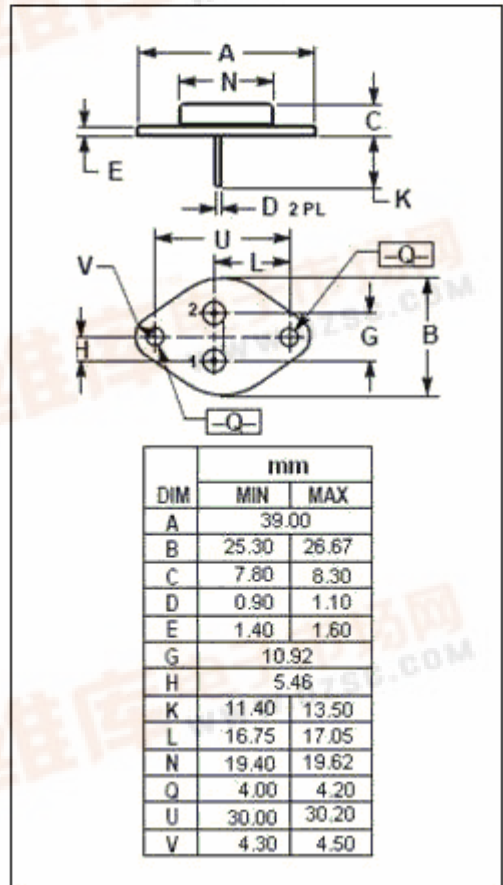
APPLICATIONS

- 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** $T_C=25^{\circ}\text{C}$  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			