

isc Silicon NPN Power Transistor

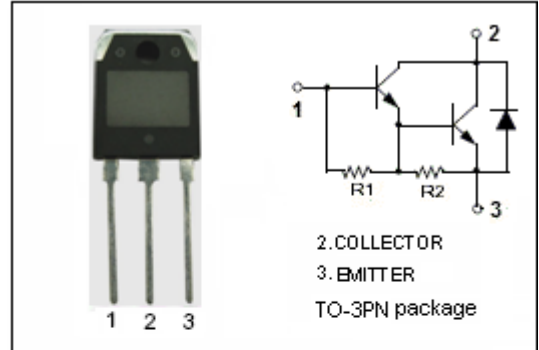
BUV37

DESCRIPTION

- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 400V(\text{Min.})$
- Low Collector Saturation Voltage-  
:  $V_{CE(sat)} = 2.0V(\text{Max.}) @ I_C = 10A$

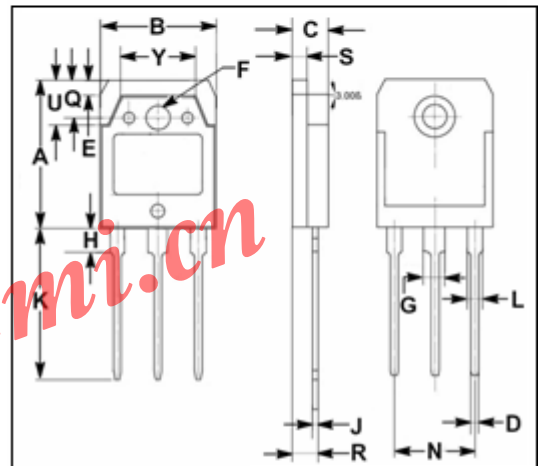
APPLICATIONS

- Designed for use in automotive ignition circuits.



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	600	V
$V_{CEO}$	Collector-Emitter Voltage	400	V
$V_{EBO}$	Emitter-Base Voltage	8	V
$I_C$	Collector Current - Continuous	15	A
$I_{CM}$	Collector Current-Peak	30	A
$I_B$	Base Current - Continuous	4	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ C$	100	W
$T_j$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ C$



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

THERMAL CHARACTERISTICS

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

**isc Silicon NPN Power Transistor****BUV37****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	$I_C= 5A; I_B= 0; L= 15mH$	400			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C= 7 A; I_B= 70mA$			1.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C= 10 A; I_B= 150mA$			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 10 A; I_B= 150mA$			2.7	V
$I_{CEO}$	Collector Cutoff Current	$V_{CE}= 400V; I_B= 0$			0.25	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 6V; I_C= 0$			40	mA
$h_{FE}$	DC Current Gain	$I_C= 15A; V_{CE}= 5V$	20			

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