

isc Silicon NPN Power Transistor
BUX87
DESCRIPTION

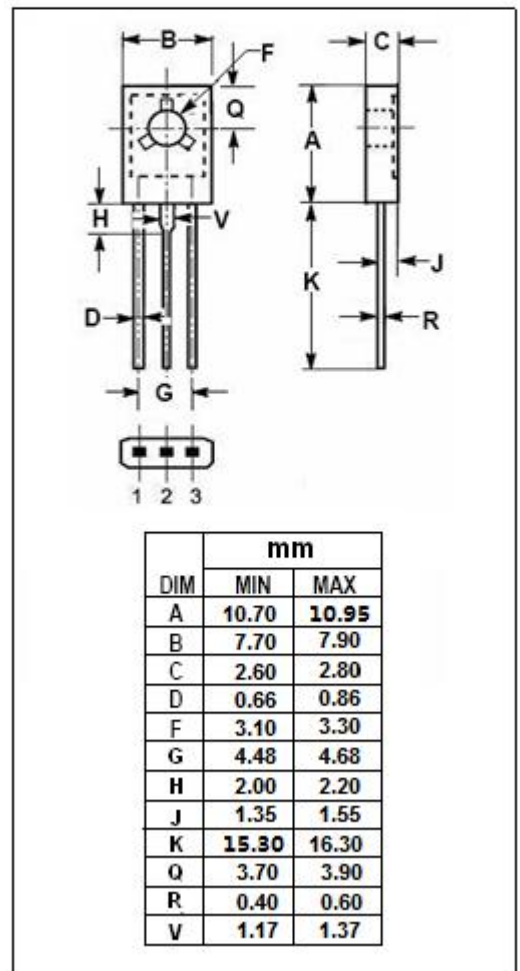
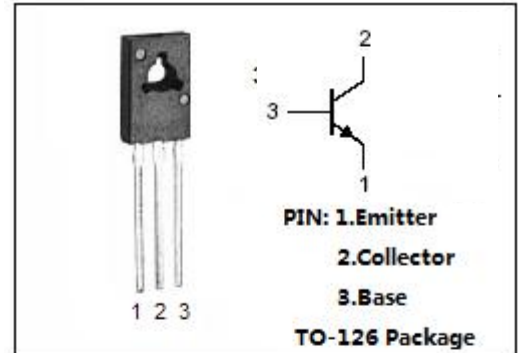
- High Voltage capability
: $V_{CE(sus)} = 450V(\text{Min})$
- Minimum lot-to-lot spread for reliable operation
- High DC current gain
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Fly back and Forward single transistor low Power converters

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEO}	Collector-Emitter Voltage	450	V
V_{CEX}	Collector-Emitter Voltage	1000	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	0.5	A
I_{cm}	Collector Current-Pulse	1	A
P_{tot}	Total Dissipation at $T_c=25^\circ\text{C}$	40	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$


THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.12	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	100	$^\circ\text{C/W}$

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ELECTRICAL CHARACTERISTICS

 T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Collector-Emitter Voltage	I _C =100mA	450			V
V _{BEO}	Emitter-Base Voltage	I _C =10mA	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 0.1A; I _B = 0.01A I _C = 0.2A; I _B = 0.02A			0.8 1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 0.2A; I _B = 0.02A			1.0	V
I _{CEV}	Collector Cutoff Current	V _{CE} = 1000V V _{CE} = 1000V T _J =125°C			100 1	μ A mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V			1.0	mA
h _{FE}	DC Current Gain	I _C = 50mA, V _{CE} = 5V I _C = 40mA, V _{CE} = 5V	12	50		
f _T	Transition Frequency	I _C = 0.05A ; V _{CE} = 10V,f= 1MHz		20		MHz

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