

isc Silicon NPN Power Transistor
BUW35
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V$ (Min.)
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

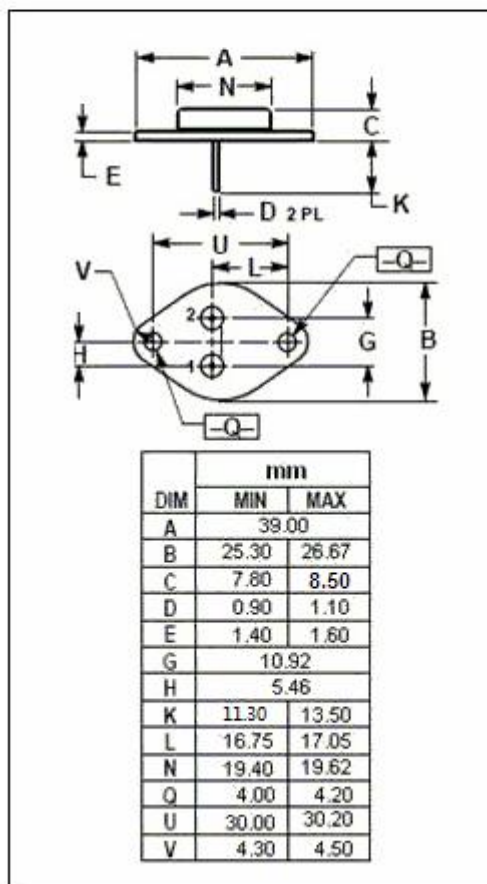
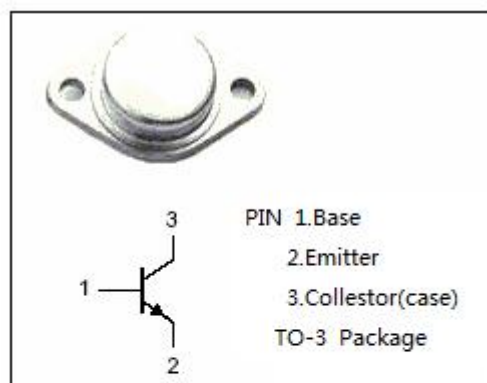
- Designed for high voltage, fast switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	800	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	5	A
P_T	Total Power Dissipation @ $T_c \leq 25^\circ C$	125	W
T_J	Junction Temperature	200	$^\circ C$
T_{stg}	Storage Temperature Range	-65~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.4	$^\circ C/W$



isc Silicon NPN Power Transistor**BUW35****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 = 5mA ;I _B = 0	400			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 1A			1.5	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 8A; I _B = 2.5A			1.5	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 1A			1.5	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C = 8A; I _B =2.5A			1.8	V
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			1	mA
I _{CES}	Collector Cutoff Current	V _{CE} = 800V;V _{BE} = 0 V _{CE} = 800V;V _{BE} = 0; T _C = 125°C			0.5 3.0	mA
h _{FE}	DC Current Gain	I _C = 1A; V _{CE} = 5V	15		50	

Switching Times; Resistive Load

t _{on}	Turn-On Time	I _C = 5A; I _{B1} = 1A; V _{CC} =250V			0.7	μs
t _s	Storage Time	I _C = 5A; I _{B1} = -I _{B2} = 1A; V _{CC} =250V			3.0	μs
t _f	Fall Time				0.8	μs

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