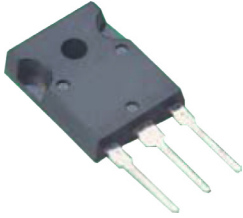


NPN Power Transistor

multicomp PRO



NPN
BUV48A

15 Amperes
Power Transistors
450V
150W

Features

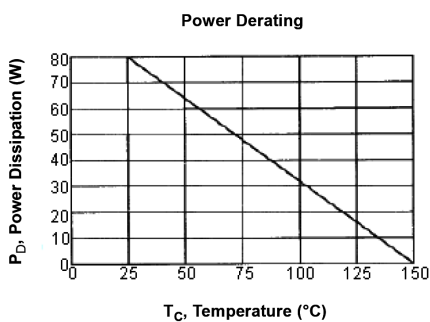
- Collector-Emitter sustaining voltage
 $V_{CE(sus)} = 450V$ (Minimum)
- Collector-Emitter saturation voltage
 $V_{CE(sat)} = 1.5V$ (Maximum) at $I_c = 8A$
- Switching time - $t_r = 0.8\mu s$ (maximum) at $I_c = 8A$

Maximum Ratings

Characteristic	Symbol	Rating	Unit
Collector - Emitter Voltage	V_{CEO}	450	V
Collector - Base Voltage	V_{CBO}	1,000	
Emitter - Base Voltage	V_{EBO}	7	
Collector Current - Continuous - Peak	I_c I_{CM}	15 30	A
Base Current	I_B	4	
Total Power Dissipation at $T_c = 25^\circ C$ Derate above $25^\circ C$	P_D	150 1	W W / $^\circ C$
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ C$

Thermal Characteristics

Characteristic	Symbol	Maximum	Unit
Thermal Resistance Junction to case	$R_{\theta JC}$	1	$^\circ C / W$



Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

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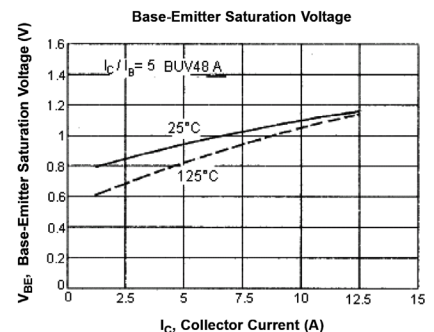
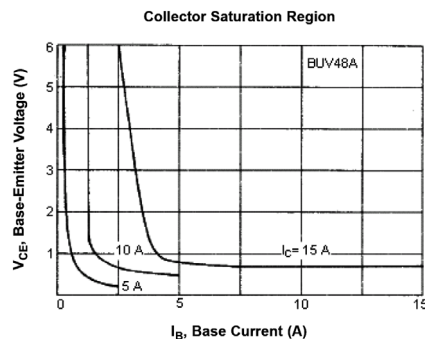
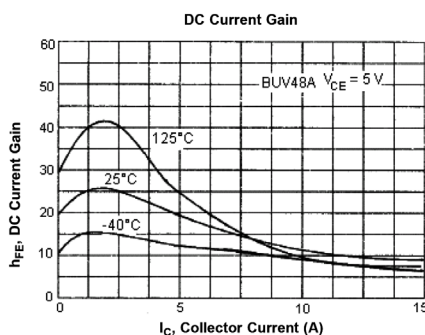
Electrical Characteristics (T_c = 25°C unless otherwise specified)

Characteristic	Symbol	Minimum	Maximum	Unit	
OFF Characteristics					
Collector - Emitter Sustaining Voltage (1) (I _c = 200mA, I _B = 0, L = 25mH)	V _{CEO (sus)}	450	-	V	
Collector Cut off Current (V _{CE} = V _{CEX} , V _{BE} = -2.5V) (V _{CE} = V _{CEX} , V _{BE} = -2.5V, T _c = 125°C)	I _{CEX}	-	0.2 2	mA	
Collector Cut off Current (V _{CE} = V _{CEX} , R _{BE} < 10Ω) (V _{CE} = V _{CEX} , R _{BE} < 10Ω, T _c = 125°C)	I _{CER}	-	0.5 4		
Emitter Cut off Current (V _{EB} = 5V, I _c = 0)	I _{EBO}	-	1		
ON Characteristics (1)					
Collector - Emitter Saturation Voltage (I _c = 8A, I _B = 1.6A) (I _c = 12A, I _B = 2.4A)	V _{CE (sat)}	-	1.5 5	V	
Base-Emitter Saturation Voltage (I _c = 8A, I _B = 1.6A)	V _{BE (sat)}	-	1.6		
Switching Characteristics					
Turn On Time	I _c = 8A, I _{B1} = 1.6V I _{B2} = -1.6A	t _{on}	-	1	μs
Storage Time		t _s	-	3	
Fall Time		t _f	-	0.8	

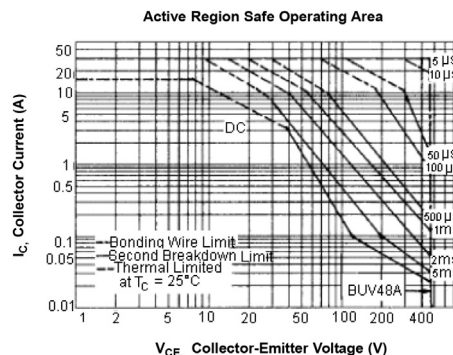
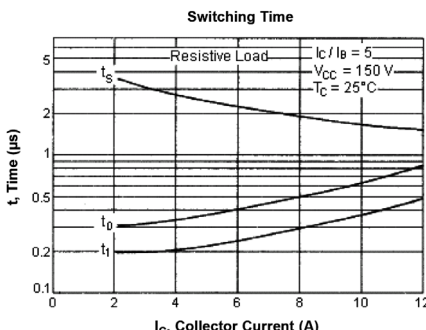
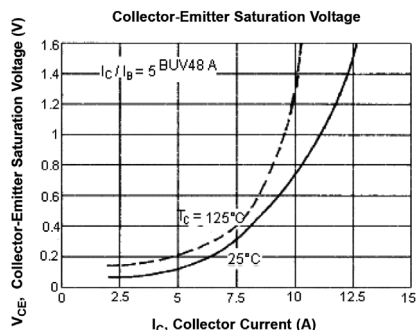
1. Pulse Test : Pulse width : 300 μs, duty cycle ≤2%

Specification Table

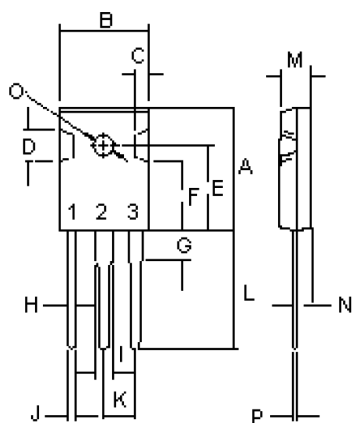
I _{c(AV)} Maximum (A)	V _{CEO} Maximum (V)	V _{CEX} Maximum (V)	V _{CE (Sat)} (V) at I _c = 12A	t _f Maximum (μs)	P _{tot} at 25°C (W)	Package	Type
15	450	1,000	5	0.8	150	TO-247	NPN



NPN Power Transistor



Diagram



Dimensions	Minimum	Maximum
A	20.63	22.38
B	15.38	16.2
C	1.9	2.7
D	5.1	6.1
E	14.81	15.22
F	11.72	12.84
G	4.2	4.5
H	1.82	2.46

Dimensions	Minimum	Maximum
I	2.92	3.23
J	0.89	1.53
K	5.26	5.66
L	18.5	21.5
M	4.68	5.36
N	2.4	2.8
O	3.25	3.65
P	0.55	0.7

Dimensions : Millimetres

- Pin 1. Base**
2. Collector
3. Emitter

Part Number Table

Description	Part Number
NPN Power Transistor, 450V, 15A, TO-247	BUV48A

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