



### NPN Silicon High Power Ttransistors

### BUV48A

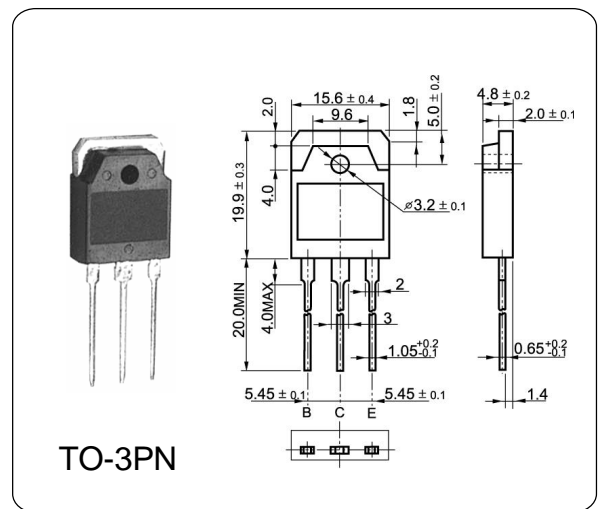
#### DESCRIPTION

The BUV48A transistors are designed for high-voltage, high-speed, power switching in inductive circuits where fall time is critical. They are particularly suited for line-operated switchmode applications such as:

- ◆ Switching Regulators
- ◆ Inverters
- ◆ Solenoid and Relay Drivers
- ◆ Motor Controls
- ◆ Deflection Circuits

#### ABSOLUTE MAXIMUM RATINGS ( Ta = 25°C )

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	1000	V
Collector-Emitter Voltage	$V_{CEO}$	450	V
Emitter-Base Voltage	$V_{EBO}$	7.0	V
Collector Current	$I_C$	15	A
Base Current	$I_B$	5.0	A
Total Dissipation at	$P_{tot}$	150	W
Max. Operating Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55~150	°C



#### ELECTRICAL CHARACTERISTICS ( Ta = 25°C )

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector Cut-off Current	$I_{CES}$	$V_{CE}=1000V, I_E=0$	—	—	0.5	mA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5.0V, I_C=0$	—	—	0.1	mA
Collector-Emitter Sustaining Voltage	$V_{CEO}$	$I_C=100mA, I_B=0$	450	—	—	V
DC Current Gain	$h_{FE}$	$V_{CE}=5V, I_C=8.0A$	8	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=8.0A, I_B=1.6A$	—	—	1.5	V
		$I_C=12A, I_B=2.4A$	—	—	5.0	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=8.0A, I_B=1.6A$	—	—	1.6	V
Storage Time	$T_S$	$V_{CC}=300V, T_p = 30 us$	—	—	2.0	us