

## **BUT12/12A**

## **High Voltage Power Switching Applications**



1.Base 2.Collector 3.Emitter

## **NPN Silicon Transistor**

## Absolute Maximum Ratings $T_C=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage		
	: BUT12	850	V
	: BUT12A	1000	V
V <sub>CEO</sub>	Collector-Emitter Voltage		
	: BUT12	400	V
	: BUT12A	450	V
I <sub>C</sub>	Collector Current (DC)	8	А
I <sub>CP</sub>	*Collector Current (Pulse)	20	А
I <sub>B</sub>	Base Current	4	А
P <sub>C</sub>	Collector Dissipation (T <sub>C</sub> =25°C)	100	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	- 65 ~ 175	°C

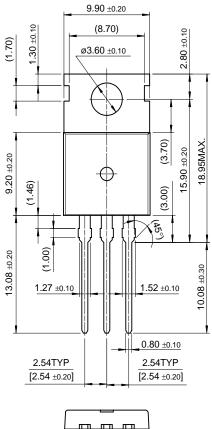
## Electrical Characteristics T<sub>C</sub>=25°C unless otherwise noted

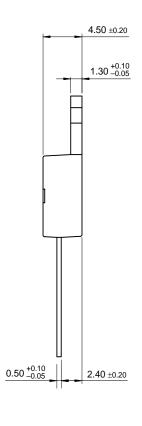
Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
V <sub>CEO</sub> (sus)	* Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 100mA, L = 25mH	400			V
I <sub>CES</sub>	Collector Cut-off Current	$V_{CE} = V_{CES}, V_{BE} = 0$			1	mA
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{BE} = 9V, I_{C} = 0$			10	mA
V <sub>CE</sub> (sat)	* Collector-Emitter Saturation Voltage	$I_C = 6A, I_B = 1.2A$			1.5	V
V <sub>BE</sub> (sat)	* Base-Emitter Saturation Voltage	$I_C = 6A, I_B = 1.2A$			1.5	V
t <sub>ON</sub>	Turn On Time	$V_{CC} = 250V, I_{C} = 6A$			1	μs
t <sub>STG</sub>	Storage Time	$I_{B1} = -I_{B2} = 1.2A$			4	μs
t <sub>F</sub>	Fall Time	$R_L = 41.6\Omega$			0.8	μs

<sup>\*</sup> Pulsed Test: PW = 300µs, duty cycle = 1.5%

# **Package Demensions**

# TO-220





10.00 ±0.20

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