



BU931Z

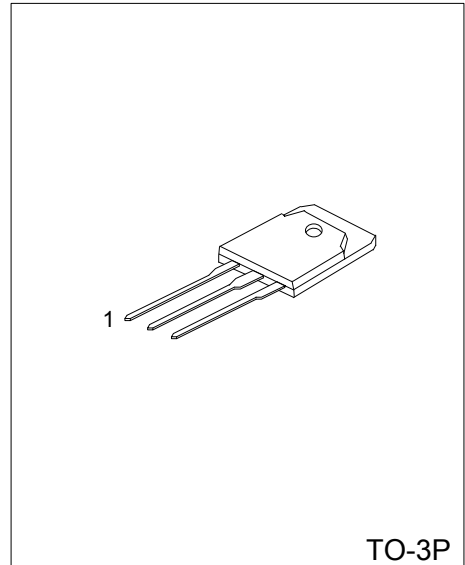
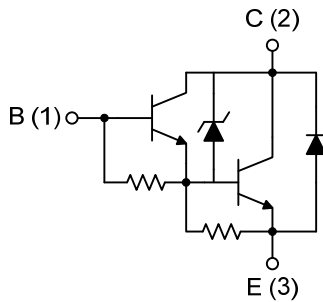
NPN SILICON TRANSISTOR

NPN POWER DARLINGTON

■ FEATURES

- * High Operating Junction Temperature
- * High Voltage Ignition Coil Driver
- * Very Rugged Bipolar Technology

■ INTERNAL SCHEMATIC DIAGRAM



TO-3P

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BU931ZL-T3P-T	BU931ZG-T3P-T	TO-3P	B	C	E	Tube

<p>BU931ZL-T3P-T</p> <p>(1) Packing Type (2) Package Type (3) Lead Plating</p>	<p>(1) T: Tube (2) T3P: TO-3P (3) G: Halogen Free, L: Lead Free</p>
----------------------------------------------------------------------------------------	-----------------------------------------------------------------------------

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Emitter Voltage	BV_{CEO}	500	V
Emitter-Base Voltage	BV_{EBO}	5	V
Collector Current (DC)	I_C	10	A
Collector Peak Current	I_{CM}	15	A
Base Current	I_B	1	A
Base Peak Current	I_{BM}	5	A
Total Dissipation (T _C = 25 °C)	P_D	125	W
Junction Temperature	T_J	+175	°C
Storage Temperature	T_{STG}	-65 ~ +175	°C

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-off Current	I_{CEO}	$V_{CE} = 500\text{ V}$			100	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5\text{ V}$			20	mA
	V_{CL}	$I_C = 100\text{mA}$	400			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)1}$	$I_C = 7\text{ A}, I_B = 70\text{ mA}$			1.6	V
	$V_{CE(SAT)2}$	$I_C = 8\text{ A}, I_B = 100\text{ mA}$			1.8	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)1}$	$I_C = 7\text{ A}, I_B = 70\text{ mA}$			2.2	V
	$V_{BE(SAT)2}$	$I_C = 8\text{ A}, I_B = 100\text{ mA}$			2.4	V
DC Current Gain	h_{FE}	$V_{CE} = 10\text{ V}, I_C = 5\text{ A}$	300			
Diode Forward Voltage	V_F	$I_F = 8\text{ A}$			2.5	V
Inductive Load Storage Time / Fall Time	t_s	$V_{CC} = 12\text{ V}, V_{clamp} = 300\text{ V}$ $L = 7\text{ mH}$		15		μs
	t_f	$I_C = 7\text{ A}, I_B = 70\text{ mA}$ $V_{BE} = 0, R_{BE} = 47\Omega$		0.5		μs

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.