



BU931Z

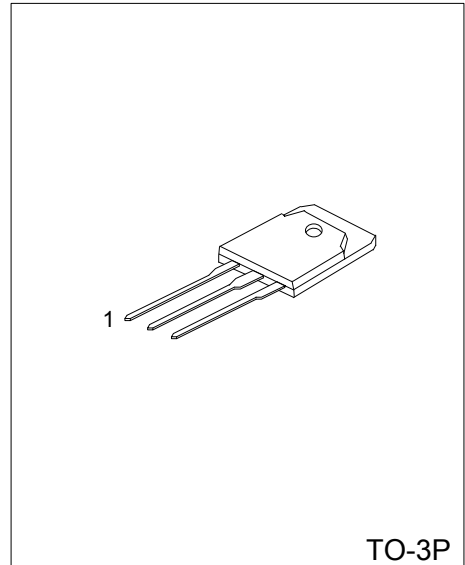
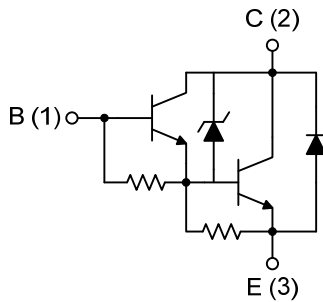
NPN SILICON TRANSISTOR

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</p> <p>(2) Package Type</p> <p>(3) Lead Plating</p>	<p>(1) T: Tube</p> <p>(2) T3P: TO-3P</p> <p>(3) G: Halogen Free, L: Lead Free</p>
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■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Emitter Voltage	V_{CEO}	500	V
Emitter-Base Voltage	V_{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

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