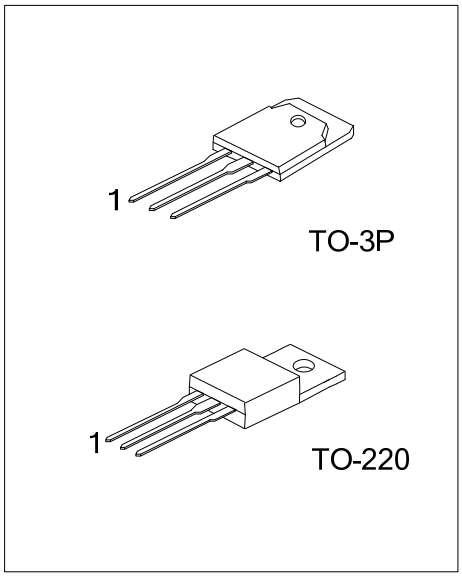
BU931Z

NPN SILICON TRANSISTOR

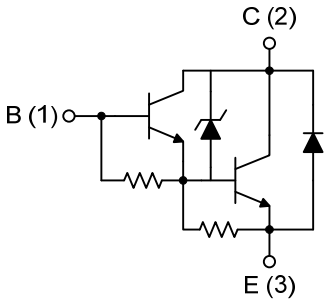
NPN POWER DARLINGTON



■ FEATURES

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

■ INTERNAL SCHEMATIC DIAGRAM



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BU931ZL-TA3-T	BU931ZG-TA3-T	TO-220	B	C	E	Tube
BU931ZL-T3P-T	BU931ZG-T3P-T	TO-3P	B	C	E	Tube

BU931Z-TA3-T
(1)Packing Type
(2)Package Type
(3)Lead Free

(1) T: Tube
(2) TA3: TO-220, T3P: TO-3P
(3) L: Lead Free, G: Halogen Free

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Emitter Voltage		BV_{CEO}	350	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)	TO-220	P_D	120	W
	TO-3P		125	
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} = 250V			100	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5V			20	mA
Clamping voltage	V_{CL}	I_C = 100mA	400			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)1}$	I_C = 7 A, I_B = 70 mA			1.6	V
	$V_{CE(SAT)2}$	I_C = 8 A, I_B = 100 mA			1.8	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)1}$	I_C = 7 A, I_B = 70 mA			2.2	V
	$V_{BE(SAT)2}$	I_C = 8 A, I_B = 100 mA			2.4	V
DC Current Gain	h_{FE}	V_{CE} = 10 V, I_C = 5 A	300			
Diode Forward Voltage	V_F	I_F = 8 A			2.5	V
Inductive Load Storage Time / Fall Time	t_S	V_{CC} = 12 V, V_{clamp} = 300 V L = 7 mH, I_C = 7 A, I_B = 70 mA V_{BE} = 0, R_{BE} = 47Ω		15		μs
	t_F			0.5		μs