

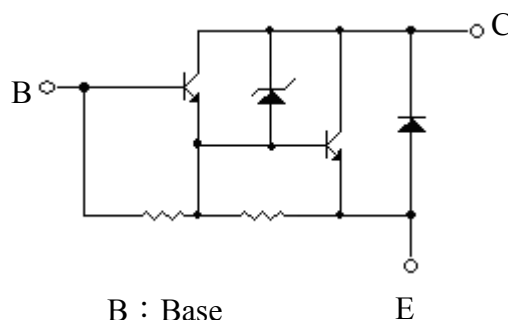
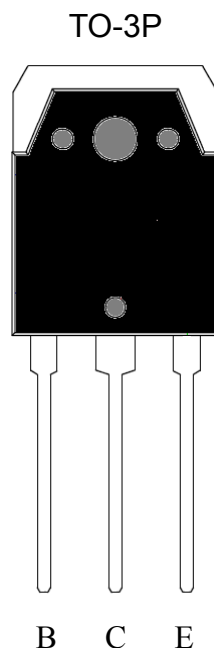
NPN Epitaxial Planar Transistor

Features:

- High BV_{CEO}
- Low $V_{CE(SAT)}$
- High current capability
- Built-in clamping zener
- Pb-free lead plating package

Applications :

- High ruggedness electronic ignitions



BV_{CEO}	350V
I_C	15A
$V_{CESAT(MAX)}$	2V @12A

Ordering Information

Device	Package	Shipping
KWBU941Z	TO-3P (Pb-free lead plating package)	30 pcs / tube, 10 tubes/ box , 10 boxes/carton

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V _{CBO}	350	V
Collector-Emitter Voltage	V _{CEO}	350	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _{C(DC)}	15	A
	I _{C(Pulse)}	30 *1	
Base Current	I _{B(DC)}	1	A
	I _{B(Pulse)}	5 *1	
Power Dissipation @ T _C =25°C	P _D	155	W
Thermal Resistance, Junction to Case	R _{θJC}	0.97	°C/W
Junction Temperature	T _j	175	°C
Storage Temperature	T _{stg}	-65~+175	°C

Note : *1. Single Pulse tp<5ms

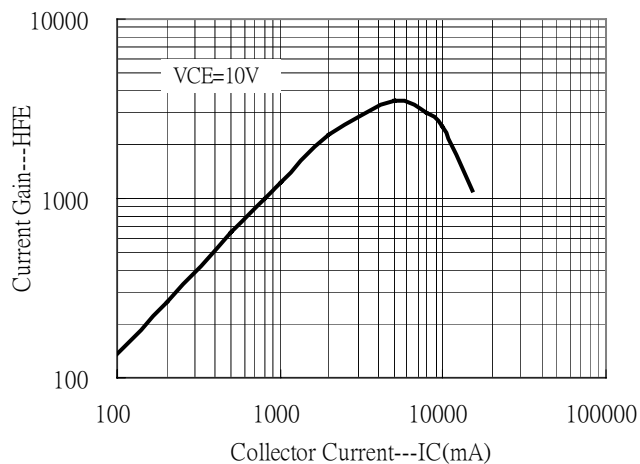
Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CBO}	350	-	-	V	I _C =1mA, I _E =0
BV _{CEO}	350	-	-	V	I _C =100mA, I _B =0
I _{CEO}	-	-	100	μA	V _{CE} =300V, I _E =0
I _{CBO}	-	-	100	μA	V _{CB} =300V, I _E =0
I _{EBO}	-	-	20	mA	V _{EB} =5V, I _C =0
*V _{CE(sat)} 1	-	-	1.8	V	I _C =8A, I _B =100mA
*V _{CE(sat)} 2	-	-	1.8	V	I _C =10A, I _B =250mA
*V _{CE(sat)} 3	-	-	2	V	I _C =12A, I _B =300mA
*V _{BE(sat)} 1	-	-	2.2	V	I _C =8A, I _B =100mA
*V _{BE(sat)} 2	-	-	2.5	V	I _C =10A, I _B =250mA
*V _{BE(sat)} 3	-	-	2.7	V	I _C =12A, I _B =300mA
*V _{FEC}	-	-	2.5	V	I _C =10A
*h _{FE} 1	300	-	-	-	V _{CE} =10V, I _C =5A
*h _{FE} 2	100	-	-	-	V _{CE} =10V, I _C =8A

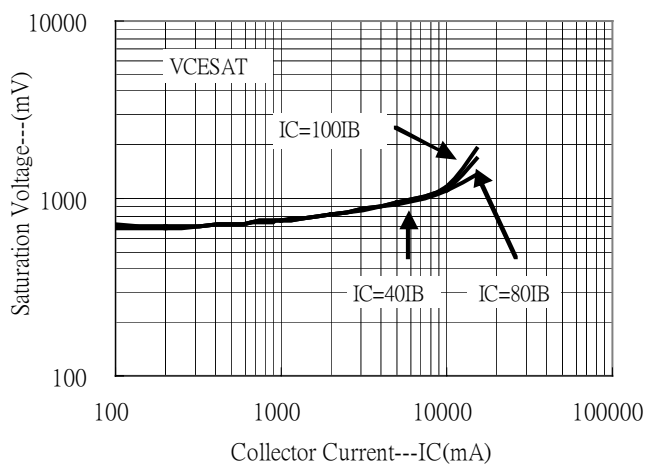
*Pulse Test : Pulse Width ≤300μs, Duty Cycle≤2%

Typical Characteristics

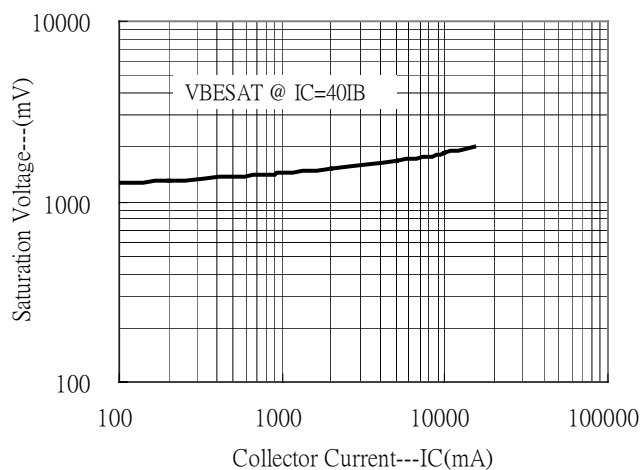
Current Gain vs Collector Current



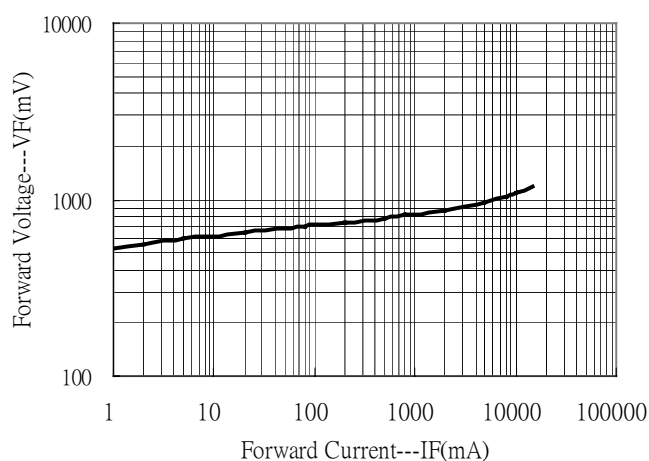
Saturation Voltage vs Collector Current



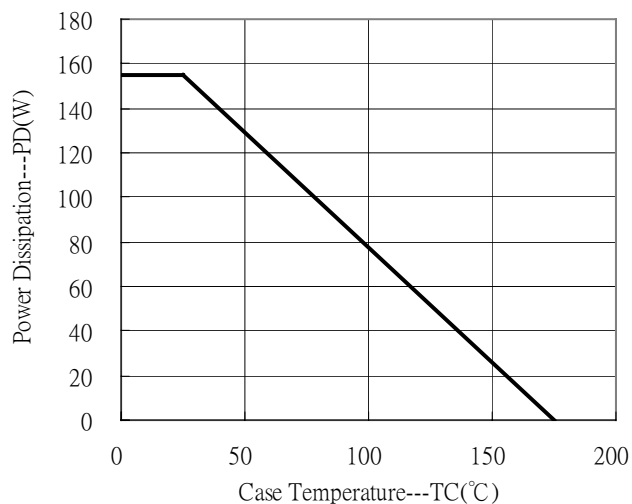
Saturation Voltage vs Collector Current



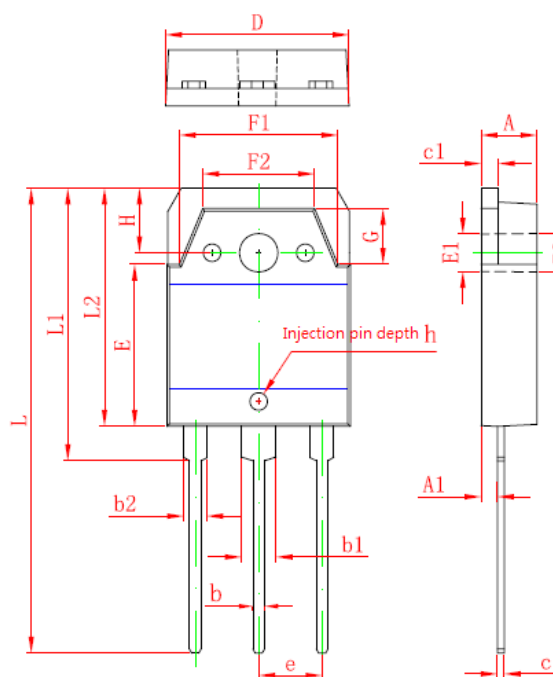
Built-in Diode Forward Characteristics



Power Derating Curve

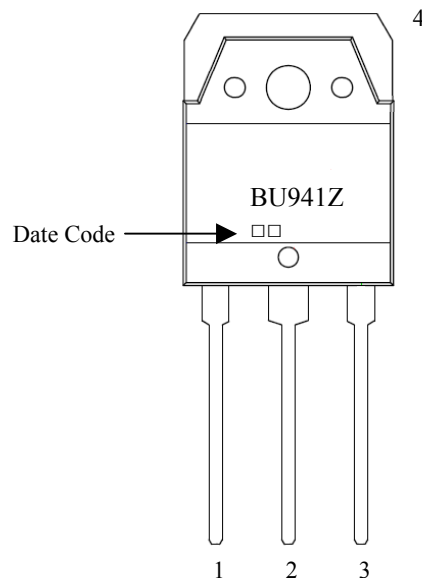


TO-3P Dimension



3-Lead TO-3P Plastic Package

Marking:



Style: Pin 1.Base 2.Collector 3.Emitter 4 Collector

DIM	Millimeters		Inches		DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	4.600	5.000	0.181	0.197	E3	13.450	REF	0.530	REF
A1	1.200	1.600	0.047	0.063	F1	13.400	13.800	0.528	0.543
b	0.800	1.200	0.031	0.047	F2	9.400	9.800	0.370	0.386
b1	2.800	3.200	0.110	0.126	L	39.900	40.300	1.571	1.587
b2	1.800	2.200	0.071	0.087	L1	23.200	23.600	0.913	0.929
c	0.500	0.700	0.020	0.028	L2	20.300	20.600	0.799	0.811
c1	1.450	1.650	0.057	0.065	Φ	6.900	7.100	0.272	0.280
D	15.450	15.850	0.606	0.622	G	5.150	5.550	0.203	0.219
E	13.700	14.100	0.539	0.555	e	5.450	TYP	0.215	TYP
E1	3.200	REF	0.126	REF	H	5.000	REF	0.197	REF
E2	3.300	REF	0.130	REF	h	0.000	0.300	0.000	0.012