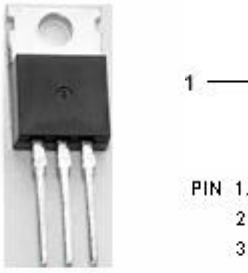
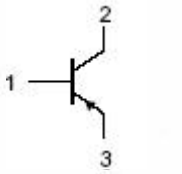
isc Silicon PNP Power Transistor 2SB1669

DESCRIPTION

- High DC current amplifier rate
  h_{FE}≥100@VCE=-5V,IC=-0.5A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation





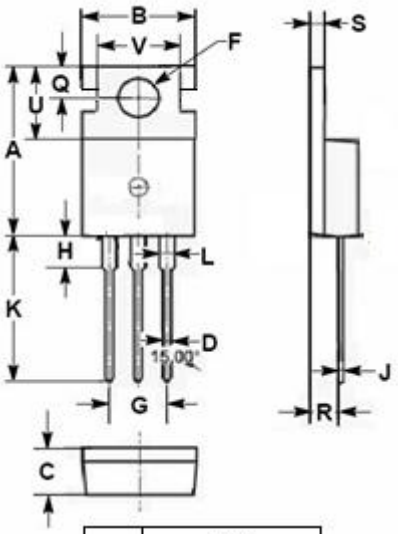
PIN 1. BASE
2.COLLECTOR
3. EMITTER
TO-220C package

APPLICATIONS

- The 2SB1669-Z is a power transistor that can be directly drive from the output of an IC.This transistor is ideal for OA and FA equipment such as motor and solenoid drivers

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-3	A
I_{CP}	Collector Current-Pulse	-6	A
P_C	Total Power Dissipation @ Ta=25℃	1.5	W
P_C	Total Power Dissipation @ T_C=25℃	25	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CE(sat)}$NOTE	Collector-Emitter Saturation Voltage	I_C= -3.0A; I_B= -300mA			-1.0	V
$V_{BE(sat)}$NOTE	Base-Emitter Saturation Voltage	I_C= -3.0A; I_B= -300mA			-2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -60V; I_E= 0			-10	μA
h_{FE1}NOTE	DC Current Gain	I_C= -0.5A; V_{CE}= -5V	100		400	
h_{FE2}NOTE	DC Current Gain	I_C= -3A; V_{CE}= -5V	20			
fT	Transition frequency	V_{CE}=-5V ,I_C=-500mA		5		MHz
Cob	Collector output capacitance	V_{CB}=-10V ,I_E=0,f=1MHz		80		pF

NOTE:Pulse test PW≤350us,duty cycle ≤2%

Switching Times

t_{on}	Turn-on Time	I_C= -2A; I_{B1}= -I_{B2}= -0.2A,		0.4		μs
t_{stg}	Storage Time			1.7		μs
t_f	Fall Time			0.5		μs

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