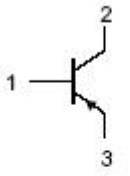
isc Silicon PNP Power Transistor — 2SB825



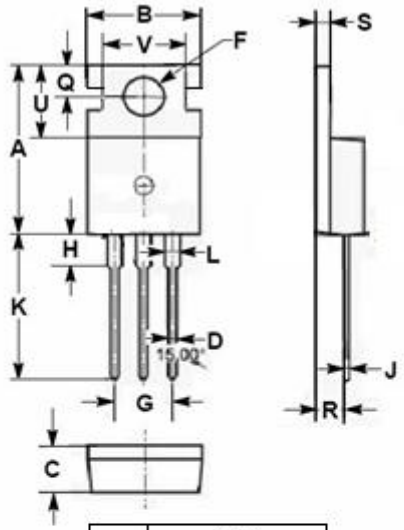
PIN: 1 Base
2 Collector
3 Emitter
TO-220C package

DESCRIPTION

- High Collector Current:: I_C= -7A
- Low Collector Saturation Voltage
  : $V_{CE(sat)}$= -0.4V(Max)@I_C= -4A
- Wide Area of Safe Operation
- Complement to Type 2SD1061

APPLICATIONS

- Universal high current switching as solenoid driving, high speed inverter and converter.



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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-7	A
I_{CM}	Collector Current-Peak	-12	A
P_C	Total Power Dissipation @ T_C=25℃	40	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -1mA ; R_{BE}= ∞	-50			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= -1mA ; I_E= 0	-60			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= -1mA ; I_C= 0	-6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -4A; I_B= -0.4A			-0.4	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -40V ; I_E= 0			-0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -4V; I_C= 0			-0.1	mA
h_{FE-1}	DC Current Gain	I_C= -1A ; V_{CE}= -2V	70		280	
h_{FE-2}	DC Current Gain	I_C= -5A ; V_{CE}= -2V	30			
f_T	Current-Gain—Bandwidth Product	I_C= -1A ; V_{CE}= -5V		10		MHz

◆ **h_{FE-1} Classifications**

Q	R	S
70-140	100-200	140-280