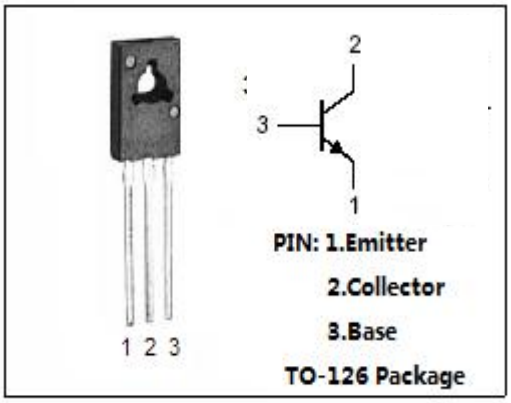
isc Silicon NPN Power Transistor — 2SD882U-P

DESCRIPTION

- High Collector Current-I_C= 3.0A
- Low Saturation Voltage -
  : $V_{CE(sat)}$= 0.8V(Max)@ I_C= 2.0A, I_B= 0.2A
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

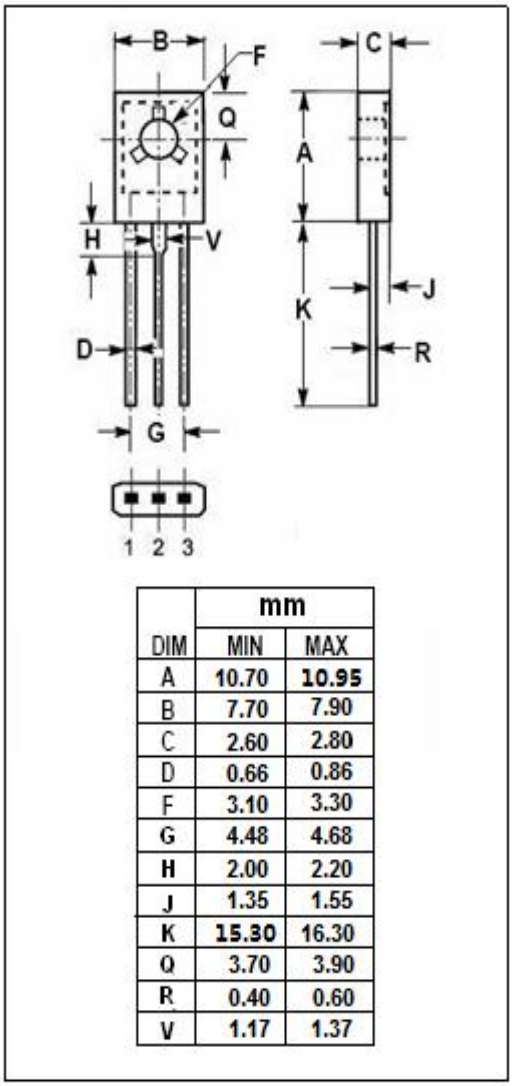


APPLICATIONS

- Design for used in medium power linear and switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CES}	Collector-Emitter Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	4	A
I_{CP}	Collector Current-Pulse	7.0	A
P_C	Collector Power Dissipation @ T_a=25℃	1.25	W
	Collector Power Dissipation @ T_C=25℃	36	
T_J	Junction Temperature	150	℃
T_{stg}	Operating and Storage Temperature Range	-65~150	℃



DIM	mm MIN	mm MAX
A	10.70	10.95
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.10	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	15.30	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

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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 ;Ib=0	100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2.0A; I_B= 0.2A			0.8	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 2A ; V_{CE}= 1V			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 120V; I_E= 0			100	μA
I_{CES}	Collector Cutoff Current	V_{CE}= 100V; I_E= 0			100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			1.0	mA
h_{FE-1}	DC Current Gain	I_C= 500mA ; V_{CE}= 1V	100		260	
h_{FE-2}	DC Current Gain	I_C= 2A ; V_{CE}= 1V	15			
h_{FE-3}	DC Current Gain	I_C= 1A ; V_{CE}= 2V	100		260	
h_{FE-4}	DC Current Gain	I_C= 10mA ; V_{CE}= 5V	15			
f_T	Current-Gain—Bandwidth Product	I_C= 0.25A ; V_{CE}= 1V	3			MHz