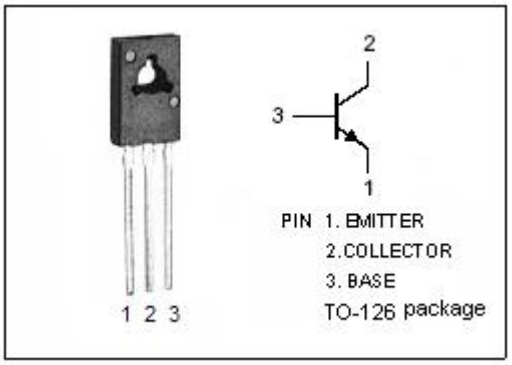
isc Silicon NPN Power Transistor — 2SC1846

DESCRIPTION

- Silicon NPN epitaxial planar type
- Low collector to emitter saturation voltage
- Output of 3W can be obtained by a complementary with 2SA0885
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

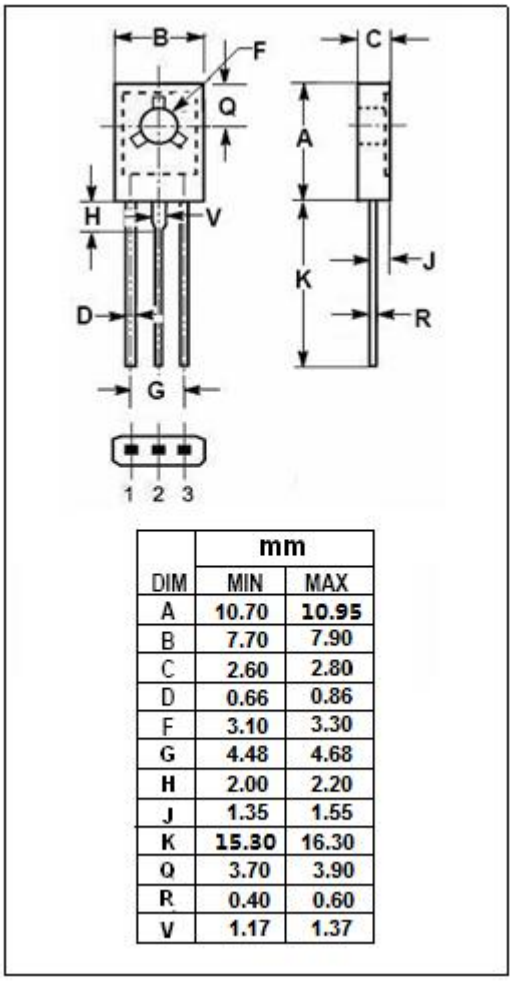


APPLICATIONS

- Suited for medium output power amplifier

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	45	V
V_{CEO}	Collector-Emitter Voltage	35	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1.5	A
I_{CP}	Collector Current-Pulse	3.0	A
P_C	Collector Power Dissipation @ T_a=25℃	1.2*1	W
	Collector Power Dissipation @ T_C=25℃	5*2	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	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
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 500mA; I_B= 50mA			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 500mA; I_B= 50mA			1.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 20V; I_E= 0			1.0	μA
I_{CEO}	Collector Emitter Current	V_{CB}= 10V; I_E= 0			100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			10	μA
h_{FE}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	50			
f_T	Current-Gain—Bandwidth Product	I_C= 50mA ; V_{CE}= 10V		200		MHz
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V,f_{test}= 1MHz		20		pF

◆ **h_{FE} Classifications**

Q	R	S
85-170	120-240	170-340