

isc Silicon NPN Power Transistor

2SC1846

DESCRIPTION

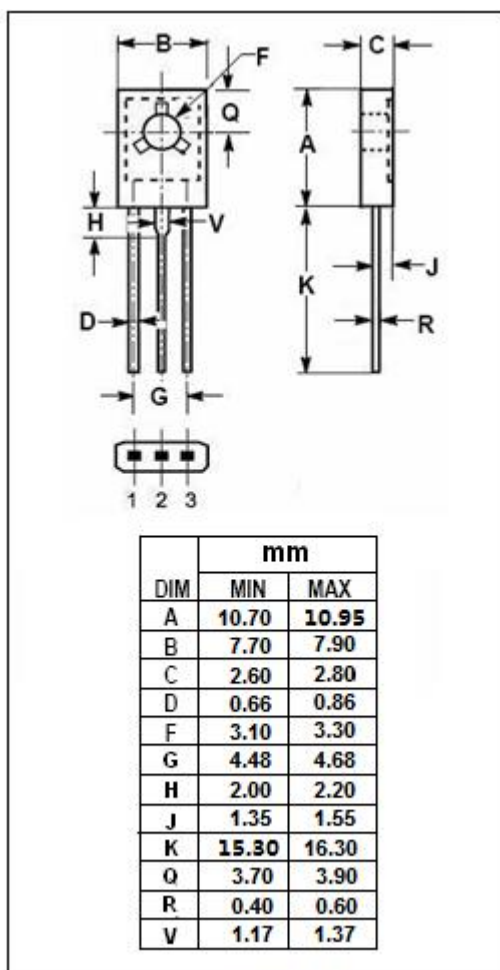
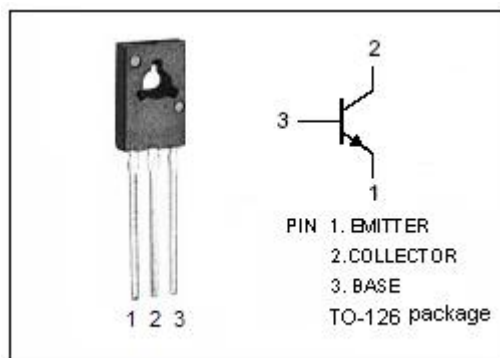
- Silicon NPN epitaxial planar type
- Low collector to emitter saturation voltage
- Output of 3W can be obtained by a complementary with 2SA0885
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Suited for medium output power amplifier

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

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 @ $T_a=25^{\circ}\text{C}$	1.2 ¹	W
	Collector Power Dissipation @ $T_c=25^{\circ}\text{C}$	5 ²	
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

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

◆ h_{FE} Classifications

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

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