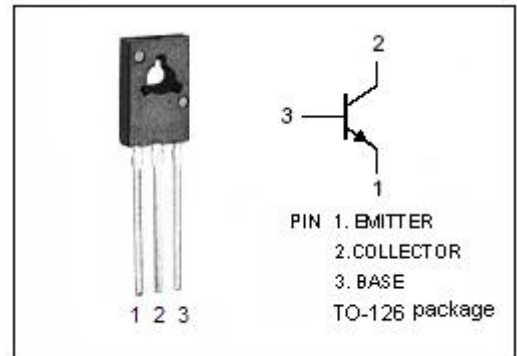


# isc Silicon NPN Power Transistor

## 2SC1847

### DESCRIPTION

- High Collector Current- $I_C = 1.5A$
- Low Saturation Voltage  
:  $V_{CE(sat)} = 1V(Max) @ I_C = 2.0A, I_B = 0.2A$
- Good Linearity of  $h_{FE}$
- Complement to Type 2SA0886
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

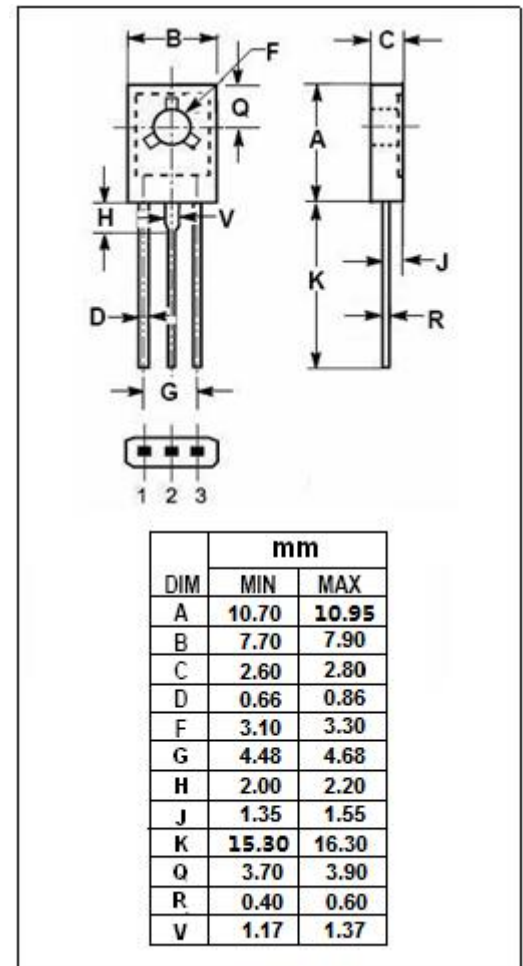


### APPLICATIONS

- Suited for the output stage of 3 watts audio amplifier, voltage regulator, DC-DC converter and relay driver.

### ABSOLUTE MAXIMUM RATINGS( $T_a = 25^\circ C$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	50	V
$V_{CEO}$	Collector-Emitter Voltage	40	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 @ $T_a = 25^\circ C$	$1.2^{*1}$	W
	Collector Power Dissipation @ $T_C = 25^\circ C$	$5^{*2}$	
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



**isc Silicon NPN Power Transistor****2SC1847****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	$I_C = 2.0\text{A}; I_B = 0.2\text{A}$			1	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 2.0\text{A}; I_B = 0.2\text{A}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = 20\text{V}; I_E = 0$			1.0	$\mu\text{A}$
$I_{CEO}$	Collector Emitter Current	$V_{CB} = 10\text{V}; I_E = 0$			100	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 5\text{V}; I_C = 0$			10	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C = 1\text{A}; V_{CE} = 5\text{V}$	80		220	
$f_T$	Current-Gain—Bandwidth Product	$I_C = 0.5\text{A}; V_{CE} = 5\text{V}$		150		MHz
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = 20\text{V}, f_{test} = 1\text{MHz}$		35		pF

 **$h_{FE}$  Classifications**

Q	R
80-160	120-220

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