

isc Silicon NPN Darlington Power Transistor

2SC1880

DESCRIPTION

- High DC Current Gain
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 120V(\text{Min})$
- Low Collector-Emitter Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

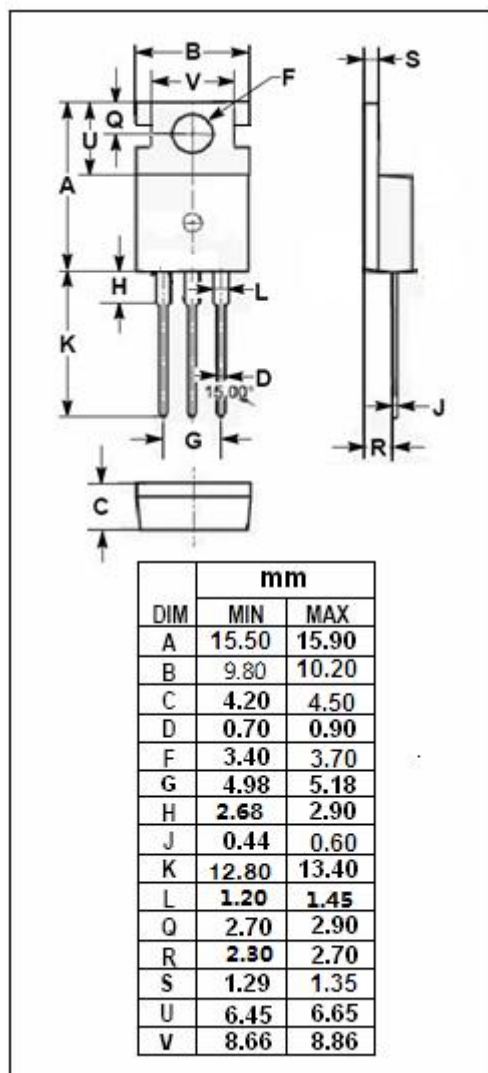
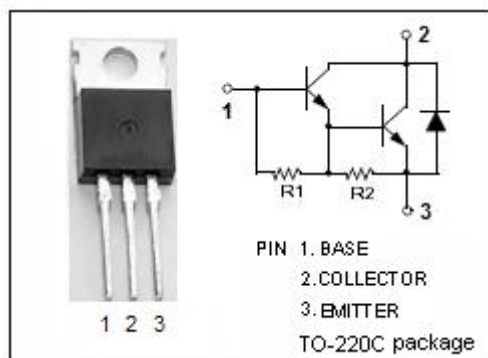
- Designed for general purpose amplifier and low speed switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	8	A
I_B	Base Current	120	mA
P_C	Collector Power Dissipation $T_c=25^\circ\text{C}$	65	W
	Collector Power Dissipation $T_a=25^\circ\text{C}$	2	
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	1.92	$^\circ\text{C/W}$
R_{thj-a}	Thermal Resistance, Junction to Ambient	62.5	$^\circ\text{C/W}$



isc Silicon NPN Darlington Power Transistor**2SC1880****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA, I _B = 0	120			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A ,I _B = 8mA			1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 100V, I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			2	mA
h _{FE}	DC Current Gain	I _C = 2A ; V _{CE} = 2V	1000			

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