

isc Silicon NPN Darlington Power Transistor
2SD930
DESCRIPTION

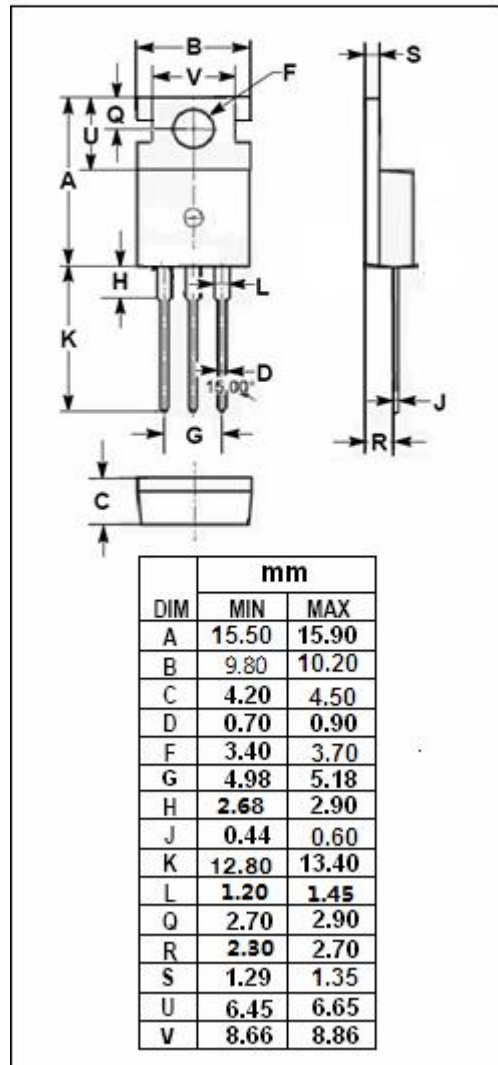
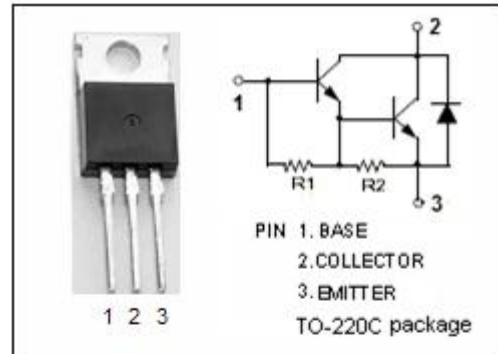
- High DC Current Gain
: $h_{FE} = 700(\text{Min.}) @ I_C = 1A, V_{CE} = 4V$
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 180V(\text{Min})$
- High Reliability
- Good Linearity of h_{FE}
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Color & B/W TV power supply
- Active power filter
- Series regulators
- General purpose power amplifiers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	180	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	5	A
I_{CP}	Collector Current-Peak	8	A
I_B	Base Current-Continuous	0.5	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	30	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Darlington Power Transistor**2SD930****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C= 10\text{mA}, I_B= 0$	180			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C= 1\text{mA}; I_B= 0$	200			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E= 3\text{mA}; I_C= 0$	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 1.5\text{A}, I_B= 50\text{mA}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 1.5\text{A}, I_B= 50\text{mA}$			2.0	V
I_{CBO}	Collector Cutoff current	$V_{CB}= 200\text{V}, I_E= 0$			0.1	mA
I_{CEO}	Collector Cutoff Current	$V_{CE}= 180\text{V}, I_B= 0$			0.5	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 5\text{V}; I_C= 0$			3	mA
h_{FE}	DC Current Gain	$I_C= 1\text{A}; V_{CE}= 4\text{V}$	700		20000	

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