

isc Silicon NPN Darlington Power Transistor

2SD920

DESCRIPTION

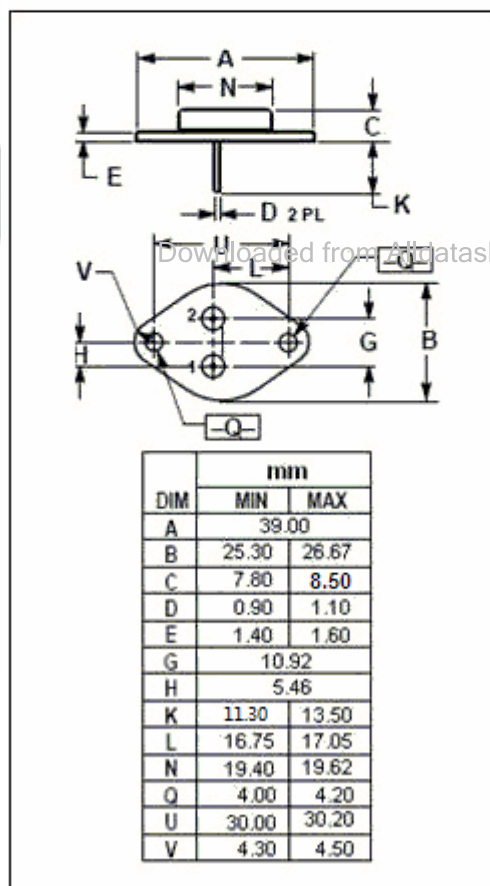
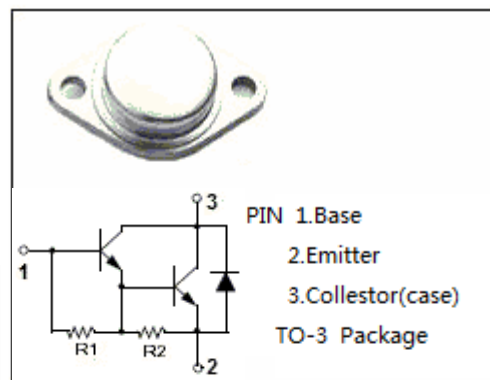
- High DC Current Gain
: $h_{FE} = 700(\text{Min.}) @ I_C = 1A, V_{CE} = 4V$
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 200V(\text{Min})$
- Low Collector Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for series regulators ,color TV, power supplies and similar devices applications.

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	200	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	8	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	100	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**2SD920****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	$I_C=30\text{mA}, I_B=0$	200			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}, I_B=12\text{mA}$			2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation voltage	$I_C=5\text{A}, I_B=20\text{mA}$			4.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=3.0\text{A}; V_{CE}=3\text{V}$			2.5	V
I_{CBO}	Collector Cutoff current	$V_{CB}=200\text{V}, I_E=0$			0.1	mA
I_{CEO}	Collector Cutoff Current	$V_{CE}=200\text{V}, I_B=0$			0.5	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			5	mA
h_{FE}	DC Current Gain	$I_C=1\text{A}; V_{CE}=4\text{V}$	700		20000	