

**isc Silicon PNP Darlington Power Transistor**
**BD900A**
**DESCRIPTION**

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -80V(\text{Min})$
- High DC Current Gain  
:  $h_{FE} = 750(\text{Min}) @ I_C = -4A$
- Collector Power Dissipation-  
:  $P_C = 70W @ T_C = 25^\circ C$
- 8 A Continuous Collector Current
- Complement to Type BD899A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

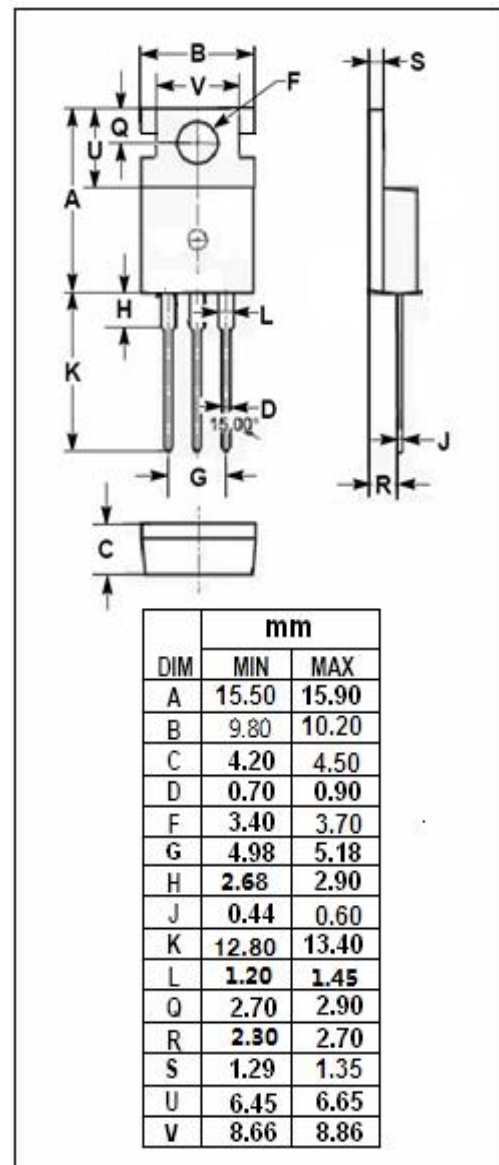
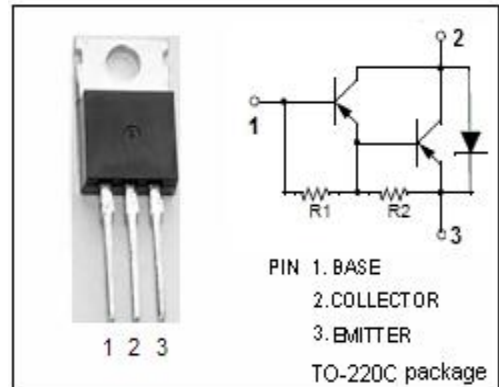
- Designed for use as complementary AF push-pull output stage applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-80	V
$V_{CEO}$	Collector-Emitter Voltage	-80	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-8	A
$I_B$	Base Current-Continuous	-0.3	A
$P_C$	Collector Power Dissipation @ $T_a = 25^\circ C$	2	W
	Collector Power Dissipation @ $T_C = 25^\circ C$	70	
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ C$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Thermal Resistance, Junction to Case	1.79	$^\circ C/W$
$R_{th(j-a)}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$



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## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -50mA; I <sub>B</sub> = 0	-80			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -4A; I <sub>B</sub> = -16mA			-2.8	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -4A; V <sub>CE</sub> = -3V			-2.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -80V; I <sub>E</sub> = 0			-0.2	mA
		V <sub>CB</sub> = -80V; I <sub>E</sub> = 0; T <sub>C</sub> = 100°C			-2.0	
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = -40V; I <sub>B</sub> = 0			-0.5	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0			-2	mA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -4A; V <sub>CE</sub> = -3V	750			

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