

isc Silicon PNP Darlington Power Transistor
BD898A
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -60V(\text{Min})$
- High DC Current Gain
: $h_{FE} = 750(\text{Min}) @ I_C = -4A$
- Collector Power Dissipation-
: $P_C = 70W @ T_C = 25^\circ\text{C}$
- 8 A Continuous Collector Current
- Complement to Type BD897A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

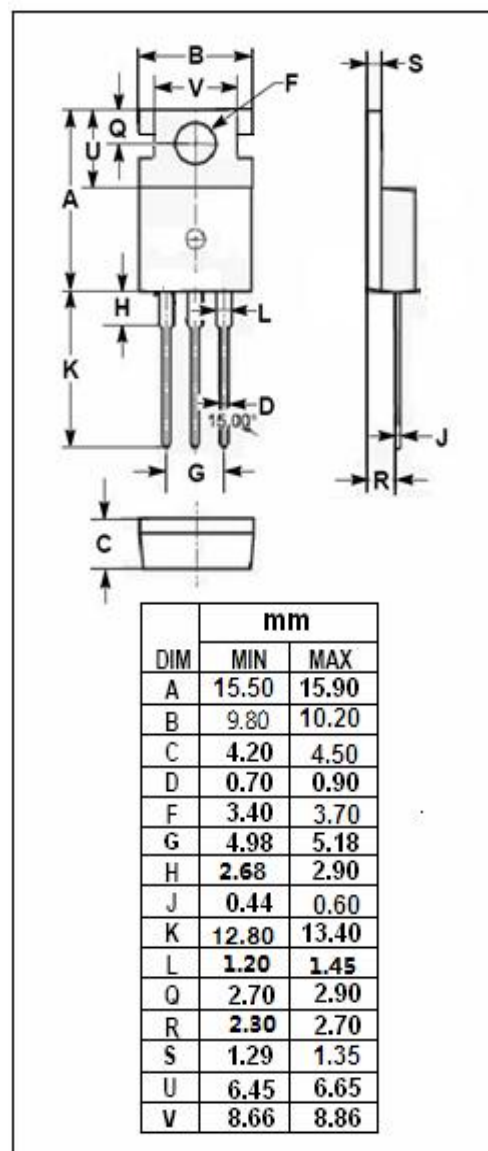
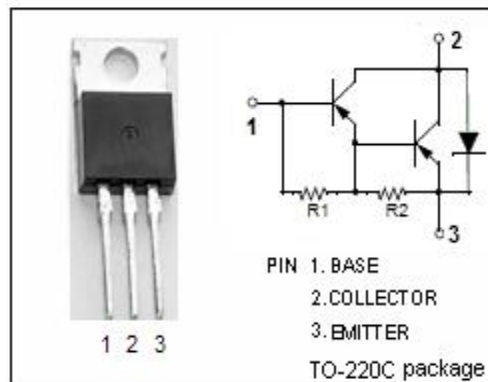
- Designed for use as complementary AF push-pull output stage applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	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 @ $T_a = 25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	70	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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



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ELECTRICAL CHARACTERISTICS

 T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -50mA; I _B = 0	-60			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -4A; I _B = -16mA			-2.8	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -4A; V _{CE} = -3V			-2.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -60V; I _E = 0			-0.2	mA
		V _{CB} = -60V; I _E = 0; T _C = 100°C			-2.0	
I _{CEO}	Collector Cutoff Current	V _{CE} = -30V; I _B = 0			-0.5	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-2	mA
h _{FE}	DC Current Gain	I _C = -4A; V _{CE} = -3V	750			

Switching Times

t _{on}	Turn-On Time	I _C = -3A; I _{B1} = -I _{B2} = -12mA; V _{BE(off)} = 3.5V; R _L = 10 Ω; t _p = 20 μ s, DutyCycle ≤ 2%		1		μ s
t _{off}	Turn-Off Time			5		μ s

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