

isc Silicon PNP Darlington Power Transistor

BD678AG

DESCRIPTION

- Collector–Emitter Breakdown Voltage—
: $V_{(BR)CEO} = -60V$
- DC Current Gain—
: $h_{FE} = 750(\text{Min}) @ I_C = -2 A$
- Complement to Type BD677A
- G=Pb-Free Package

APPLICATIONS

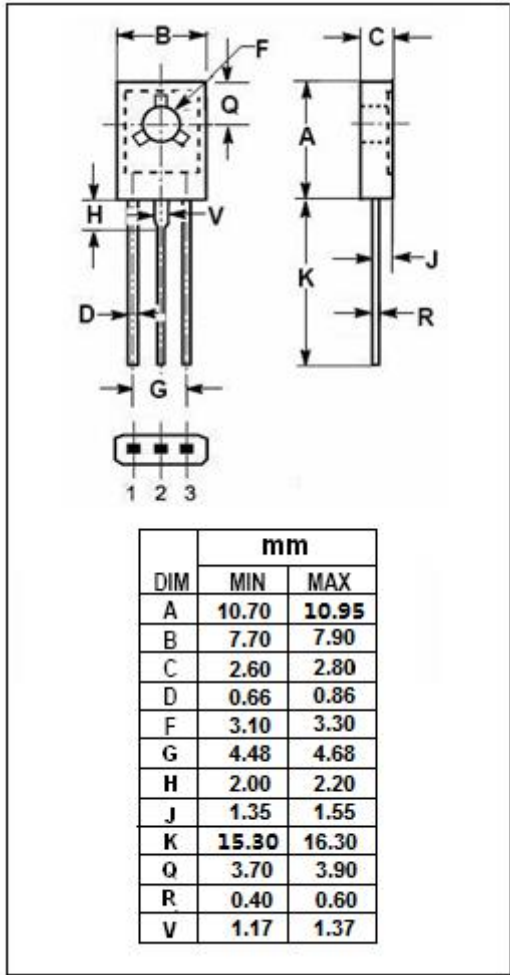
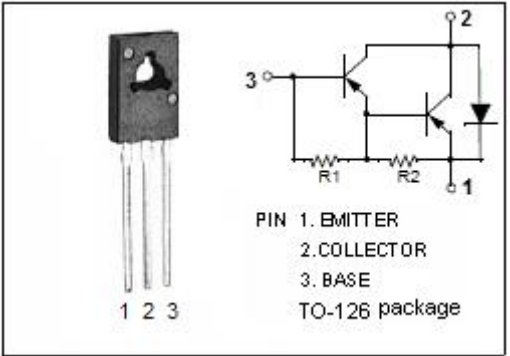
- Designed for use as output devices in complementary general-purpose amplifier applications.

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

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	-4	A
I_B	Base Current	-0.1	A
P_C	Collector Power Dissipation $T_C=25^{\circ}C$	40	W
T_j	Junction Temperature	-55~150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.13	$^{\circ}C/W$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{mA}$; $I_B = 0$	-60		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}$; $I_B = -40\text{mA}$		-2.8	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -2\text{A}$; $V_{CE} = -3\text{V}$		-2.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = -30\text{V}$; $I_B = 0$		-0.5	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = -60\text{V}$; $I_E = 0$ $V_{CB} = -60\text{V}$; $I_E = 0$; $T_C = 100^{\circ}\text{C}$		-0.2 -2.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$		-2.0	mA
h_{FE}	DC Current Gain	$I_C = -2\text{A}$; $V_{CE} = -3\text{V}$	750		