

isc Silicon PNP Power Transistor

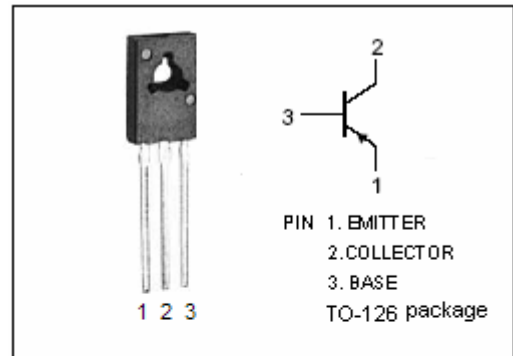
BD720

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 40 @ I_C = -0.5A$
- Collector-Emitter Breakdown Voltage -
: $V_{(BR)CEO} = -60V(\text{Min})$
- Complement to type BD719

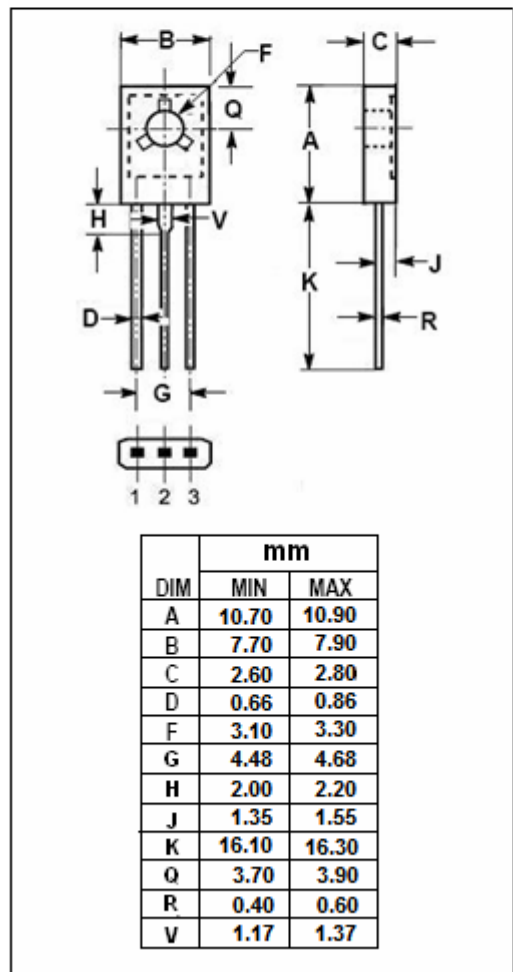
APPLICATIONS

- Designed for use in audio output and 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_{CM}	Collector Current-Peak	-7	A
I_B	Base Current-Continuous	-1	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	30	W
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	3.5	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	100	$^{\circ}C/W$

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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	$I_C = -30\text{mA}$; $I_B = 0$	-60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}$; $I_B = -0.2\text{A}$			-1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -2\text{A}$; $V_{CE} = -4\text{V}$			-1.4	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -60\text{V}$; $I_E = 0$			-50	μA
		$V_{CB} = -30\text{V}$; $I_E = 0$; $T_C = 150^\circ\text{C}$			-1	mA
I_{CEO}	Collector Cutoff Current	$V_{CE} = -30\text{V}$; $I_B = 0$			-0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-0.2	mA
h_{FE-1}	DC Current Gain	$I_C = -0.5\text{A}$; $V_{CE} = -4\text{V}$	40			
h_{FE-2}	DC Current Gain	$I_C = -2\text{A}$; $V_{CE} = -4\text{V}$	20			
f_T	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}$; $V_{CE} = -4\text{V}$	3			MHz

Switching Times

t_{on}	Turn-On time	$I_C = -1\text{A}$; $I_{B1} = -I_{B2} = -0.1\text{A}$; $V_{CC} = -20\text{V}$		0.1		μs
t_{off}	Turn-Off time			0.4		μs